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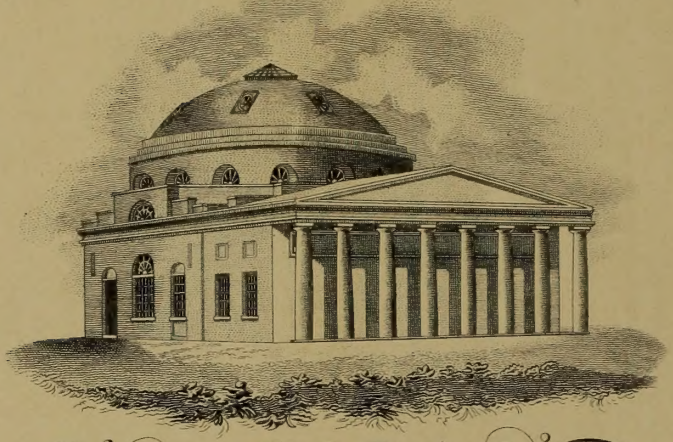

University of Maryland

University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the tables of contents were Richard J. Behles, Historical Librarian/Preservation Officer; María Milagros Pinkas, Metadata Management Librarian; Angela Cochrane and Carol Harling-Henry, Resources Division; Sarah Hovde, Abra Schnur and Megan Wolff, Services Division.

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UNIVERSITY OF MARYLAND

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[1] Water damage. Title page and some others are illegible.
[2] Title on right page, text on left (odd) pages.
[3] Cordell has Barbosa, Perfecto in class of 1875. Original inscription on last page of thesis says September 25th, 1874.

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1851-1892; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

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UNIVERSITY OF MARYLAND

THESES

1874 (a)

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* and [illegible]

(1) Water damage and fading
(2) Faded text

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Typhoid Fever.

A continued febrile condition of uncertain duration, accompanied by marked intestinal derangement, and invariably associated with lesions of the solitary and agminuted glands of the intestines.

Symptoms — An attack of typhoid fever comes on with a more gradual approach than that of any other fever, with [illegible] and [illegible], anorexia, [illegible], epistaxis and [illegible] are [illegible] pathognomonic

[illegible]

[illegible]

[illegible] may be protracted. One month is considered the average time, from [illegible] to [illegible] [illegible].

[illegible] severe cases are, the dicrotous pulse, subsultus tendinum, [illegible] [illegible] from the bowels, and if death [illegible], hiccough, cold sweats and involuntary discharges.

Great emaciation, and bed-sores may supervene in protracted cases, and even during convalescence [illegible]

in different parts of the body.

These usually affect the glands and connective tissue, but may occasionally attack the long bones.

After the first week and until late in convalescence there is danger of perforation of the intestine from ulceration of the glands of Peyer.

The occurrence of perforation is recognized by symptoms of severe peritonitis, with collapse.

The result of perforation is always fatal.

Morbid Anatomy - Wherever the source of [illegible]

typhoid fever may be, its effects are constantly manifested in the small intestine, as it is upon the solitary and agminated glands of the lower third of the ileum that the disease usually expends its virulence - Without positive evidence of inflamatory action in these glands the disease would not be "Enteric Fever".

Morbid changes, consequent upon Enteric Fever, are found in the solitary and agminated glands of the intestine; in the mesenteric glands; in the liver; and in the brain.

Causation — More doubt exists as to this in typhoid fever than in regard to any other communicable disorder. Depressing causes of all kinds seem to promote it, it is not restricted to any particular region, but is endemic in every portion of the globe.

In some of the malarious districts it is not observed distinct from remitting fever; but in these districts there is reason to believe, that it is obscured by being confounded with periodical fever.

In some portions of this country, as long

fevers were prevalent, well
cases of typhoid fe-
were scarcely known, but
typhoid fever became the
more form when intermittent
and remittent fever ceased to
prevail. In regard to
the season of the ye-, by fa-
the greater number of case-
occur in the fa-, but it m-
at all seasons. Of a
number of cases reported, the
greater number which occurred
in one fall were as foll-;
viz, the greatest num- occured
in October, the next great-

least number in November.

It is stated that a dry summer favors the prevalence of the disease in the following Autumn.

Age exerts a decided influence in this disease, the greatest number of cases occur between the ages fifteen and thirty-five years. It is not uncommon in childhood, but is exceedingly rare in infancy. It very seldom occurs after the age of fifty.

The glands of Peyer begin to disappear after adult life, and traces of their existence only are present after forty-five years.

of the lesions of these glands after fifty years of age.

Sex seems to exert no influence whatever upon this disease, it being equally liable to attack male and female.

With respect to the contagiousness of this disease, there has not been immunity of opinion.

That it may be communicated under certain circumstances is certain, and has been proven by instances in which persons having contracted the disease in one locality, go to another in which the disease was not prevailing

or less number of the inhabitants of the latter locality with whom they were brought into contact became affected.

Many instances of this kind have been reported.

Diagnosis. Typhoid fever is to be discriminated from other essential fevers, particularly typhus and remittent fever. The difference in diagnosis cannot be fully considered without anticipating the diagnostic events belonging to the clinical history of other fevers.

The distinctive points in the clinical history of typhoid fever are as follows: the radical

development, the absence of marked remissions, the abdominal symptoms viz. diarrhoea with the characteristic dejections, tympanites, tenderness in the iliac regions, and gurgling; the occurrence of epistaxis, and the characteristic eruption.

As regards the eruption, a fact to be borne in mind is, that rose colored papules like those found in typhoid fever are sometimes found in other affections. Other points to be taken into consideration are the autumn season, and [illegible]

The curve of the disease with respect to animal heat, as determined by the thermometer are to be taken into account.

This disease is characterized by a progressive daily increase of heat for the first three or four days, and an increase to 103° Fahr. during the second week. If during a period too short for the career of the disease the temperature fall to the normal standard, the disease is not typhoid fever.

Typhoid fever is sometimes liable to be confounded with meningitis, pneumonia, &c.

tuberculosis, and enteritis.

The use of the thermometer may be brought to bear upon the diagnosis of this disease at an early period, before the eruption, or other distinctive features, is fully developed.

Where typhoid fever is suspected, if the thermometer in the axilla shows an increase of heat, the diagnosis may be made with much confidence, provided acute inflammations are excluded, but if the thermometer do not show an increase of heat, it is certain that the disease is not typhoid fever.

Prognosis. The mortality of this disease varies greatly under different circumstances, a favourable prognosis may be entertained so long as the functions of the body remain undisturbed, the adynamia not great, the pulse not very frequent, or feeble, and there are no serious complications; but, under these circumstances, the prognosis should always be guarded, in view of the liability at any period of the disease to serious complications, or accidents. It should also be borne in mind that sudden coma, and perforation of the

ine are not less liable to occur in mild cases than in severe ones.

The liability of perforation during convalescence is to be recollected, on the contrary recovery may be hoped for in cases in which the symptoms denote the utmost gravity.

Treatment. Typhoid fever being self limited no calling about of it is possible. We must conduct the patient through it as safely as possible, & the expectant treatment meeting symptoms as they arise.

In the course of the first ten days if the bowels are costive

[illegible] laxatives may be given, such as castor oil in ji doses, or the preparations of magnesia; after that no laxatives.

During the first week when the fever is highest, the tongue furred and often dry, skin hot and without respiration, with view of [illegible] of secretions, small doses of [illegible] mass with ipecacuanha have been prescribed. We may give at the same time spiritus mindereri ji (dilute) every two or three hours from [illegible] until near midnight as a drapl[illegible].

In the early part of the [illegible], headache and heat of the head may call [illegible] the application of cold to it.

Dryness and heat of the surface

[illegible] body [illegible], [illegible] be allayed by sponging all over (one part only being exposed at a time) with tepid whiskey and water, or vinegar and water, never using cold unless heat is considerable.

Great tenderness of the abdomen may be treated by application of turpentine stupes. [illegible] use oil of turpentine in [illegible] in emulsion. [illegible] abdominal soreness, [illegible], and [illegible] indicate the use of turpentine, [illegible] [illegible] commenced.

Diarrhoea being a symptom of the disease, it need not be checked unless the passages [illegible] more than three or four [illegible] ay, or are

[illegible] mixture, [illegible] the late of lead, or a pill of [illegible] and opium, (three grains of the [illegible] to 1/4 gr of the latter) pro re nata, [illegible] doses of paregoric or laudanum will generally [illegible].

It is rarely necessary [illegible] laudanum [illegible].

Hemorrhage from the [illegible] not apt to continue [illegible] dangerous, if it should, astringents [illegible] kino, lead, and opium by enema [illegible] mouth must be used.

Quinine has no place as a curative of this disease, unless it be [illegible] malarial.

It is useful as a tonic after the [illegible] period of the height of [illegible] has passed.

Attention to the state of the bladder, day by day, to prevent or relieve retention of urine is important. Long protracted cases may demand a great deal of care to avoid severe bed sores.

In anticipation of these when threatened, frequent changes of [illegible] should be made, and the parts should be bathed with whiskey, spirits of camphor mixed with olive or [illegible] oil, or soak liniment. The bed clothes must be kept smooth [illegible]

[illegible] with the addition [illegible]
[illegible]
may do much good. When a
part is unavoidably pressed upon,
it may be protected by a piece of
kid spread smoothly with [illegible] plas-
ter. Actual excoriations must
be treated like ulcers, with lime water
[illegible], adhesive plasters, &c. [illegible]
ding to their condition.

Liquid food is necessary [illegible]
the first; animal broths [illegible]
[illegible], toast water [illegible].

[illegible] proportion of [illegible]
[illegible] require alcoholic
stimulation [illegible] large number of [illegible]
[illegible] not require it until [illegible]

[illegible]

[illegible]

[illegible] half a [illegible]

when weaker, brandy [illegible].

The supporting effect of [illegible] stimulants is directed chiefly to the circulation. Hence the [illegible] respecting their use are [illegible] [illegible] the heart. Feebleness of the circulation as denoted by the pulse and heart [illegible] calls for the use of stimulants and they are to be given, as regards quantity in proportion to the degree of feebleness of the circulation, and according to their effect.

During convalescence alcohol [illegible]

stimulants should always be given moderately. If they have been used freely during the course of the fever, when convalescence begins their excitant effect may be for the first time apparent.

Frequently malt liquors or light wines are best suited to convalescence.

Solid food should be allowed, as soon as convalescence is decided.

The processes of digestion and assimilation are usually very active, and the appetite apt to be voracious. The cautions to be observed relate to the kinds of food, and the quantity taken at one time.

The patient should be kept

to plain wholesome, well cooked articles of diet, in view of the probable existence of intestinal ulcerations. Gestation in the open air may be allowed early in the stage of convalescence, and as soon as their strength will permit; patients may walk out of doors. Care with respect to muscular exertion is important in convalescence from [illegible] fever in consequence of a liability to [illegible] from rupture of [illegible] ulcers.

A Thesis

on

The Use of Alcohol

as Affecting Longevity.

Respectfully Submitted

to

the Medical Faculty

of the

University of Maryland

by

Thomas E. Sears

Of Baltimore, Md.,

For the Degree of Doctor of Medicine.

1874.

The Use of Alcohol

as

Affecting Longevity.

It is proverbial that life is uncertain; but the proverb is only true so far as the prime laws of Nature are regarded. "Death is" only "natural when it occurs as the result of disease"; — and, as disease is an opposite state to that of health, the prolongation or abbreviation of human life is determined, beyond doubt, by adherence to, or departure from, the laws of

[illegible] Laws of Nature

may be defined as Laws of Vital Force; and in close association with Vital Force are both Physical and Chemical forces, — powers that must be conjointly at work in animal organism, — which are essential to animal life.

My purpose in this paper is to show, so far as I have been able to learn, the effects of the use of Alcohol upon the duration of life.

So many difficulties have grown from this long-mooted question, that for an inexperienced student to write upon it, may seem like presumption.

Yet, as questions in dispute are the very ones calling for the closest powers of research, and as students need most urging in this direction, — it may not be altogether inappropriate for me to present a few thoughts even on a subject, which has stimulated so much conflict as the one at the head of my article.

To proceed: The dispute seems to hinge on the distinct effect of Stimulants and Sedatives upon the Human System: Whether alcohol produces a stimulant or excitant result, — exciting nervous action; or, whether by a sedative or de-

pre-sanctified, it [illegible] nervous action?

The disputants do not clearly realize that the whole difficulty arises from the fact that, the [illegible] of [illegible] and large doses are confounded; — the one with the other.

In order to prove something by Logic, which common sense, itself, does not justify, — some of them reason in this manner:

Everything that hurts is a poison;
Alcohol hurts; — therefore,
Alcohol is a poison.

This is a fallacy. The syllogism is stated correctly; yet, any one acquainted with the rules of Logic will

find the major premise [illegible], therefore, the conclusion null. We know that some things hurt [illegible] of poisons, and, that what we call poisons do not hurt when given in therapeutic doses.

A stimulant cannot produce any influence upon vitality, - unless in an indirect manner. Life is something that cannot be increased or diminished. Physiologically, we connect life or vitality with motion and change, or the functional activity of our organs; when these are simply the result of life, and are uniting links between soul and body.

We may now refer to the accelerator, retardation, or inhibition.

A common belief is that, a stimulant action must be followed by a depressant action. From the teaching of Pavlov, and others, we are satisfied that such faith is not well founded. Stimulation does not give rise to exhaustion corresponding to excitement or exaltation. In moderate exercise we find no real depression. When there is exhaustion in exercise, it is not a result of previous stimulation; but is purely an overtaxation of muscular tissue.

We must keep the stimulant action at normal standard, so as not to exert enough to be depressive.

By stimulating human structure up to a certain standard, we strengthen the connections that bind the mysterious "living principle" within us. We first excite that force which produces motion and change, - and, finally assist these conditions in regulating growth, repair, and waste of the physical organization. We believe "all organized beings have a limited duration", dependent upon certain known laws of construction and destruction; or, prompt reparation and removal of waste.

Perhaps we may be asked: "[illegible] does [illegible] the Vital Force which is intimated as [illegible] to vital action, or vitality?" "In its use, have you augmentation, or diminution, of this force; freedom or oppression?" We assert, fearless of successful contradiction, that its effect is directed chiefly by circumstances and by quantity. Alcohol if properly [illegible], may exert a strengthening effect, — sustaining life, or vital force. On the other hand, if taken in excess, it will evince its [illegible] as a poison, — causing super-excitation; and, finally, ex-

hausting nerve energy;—thus [illegible] motion, interfering with cha[illegible], and consequently lessening vitality, or lowering the tone or strength of organs.

The question may be asked, "Does alcohol act as a substitute for food?" We hazard the opinion it does to a certain extent, or rather it causes a certain amount of food to go further; and itself acts as food or its substitute; and to all intents and purposes possesses the power of preventing, if not repairing, waste; thus fulfilling the office of food by building or in-

Though Alcohol is never needed in the healthy body, yet it is a valuable agent in almost every condition of physical debility, - Nature herself seeming to recognize the necessity of such co-operation. Alcohol, when used intemperately, will cause increased action of heart, accompanied by increased nutrition and increased development. The heart being a muscular organ - like all other muscles - acquires unusual bulk by excessive use. When thus affected it is said to be hypertrophied, which

simply means that the organ has been weakened by too much work and must make greater effort to perform its regular function. When we remember that everything depends upon this central organ for a blood supply we are readily conscious of the injury sustained. — But this is not all — Alcohol has a specific affinity for nervous matter. Consequently besides the vast amount of wasted force by over-exertion, we have disorder of the Sympathetic or Ganglionic nerve-system, which controls or presides over organic life, or involuntary motion, circulation,

digestion, respiration, and the [illegible].
When this system of nerves has been injured for a length of time, it gives notice by means of certain functional irregularities or morbid phenomena. The abnormal condition, or nervous depression, of this system causes the vasomotor nerves to fail in power and become paralysed. As a consequent, there is hurtful increase of calibre of the blood-vessels. With impairment of the sympathetic there is slowness - with intermittance - of heart-action; showing how closely this great system is related to the Cardiac system.

We know that when the persistent use of
decoct the body depreciates in power,
and entirely depends upon its contin-
uance for strength. Ultimately, diseases
are induced. Acute diseases become
chronic as the system grows weaker.

At last the strong man is painfully
impressed with the conviction that an
insidious enemy has been slowly, but
steadily undermining health.

How could it be otherwise? A terrible poi-
son has been lurking within him for
years, its power has been increasing
with every added dram, - and the thing
has been surely crushing out, with
mighty force, the energies of life.

the characte[illegible]
of the voice [illegible]
[illegible]
cords and muscle [illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
of the body [illegible]
those changes which [illegible]
[illegible] so alter the suffere[illegible]
that he is [illegible]
[illegible]
[illegible]
[illegible]

[illegible]

[illegible]

[illegible]

transudati[illegible]

[illegible]

according [illegible]

pathologi[illegible]

[illegible]

cation of the [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

out of the difficulty, if [illegible]

[illegible] to express an [illegible]

[illegible]

[illegible]

[illegible]

into the circulation [illegible]

a [illegible] influence upon the

[illegible]

[illegible]

[illegible] dilatation of the

(called by the Germans) deliver[illegible]

[illegible]

[illegible]

[illegible]

Thesis

On Typhoid Fever presented to the Faculty of the University of Maryland by Edward S. Miles for a degree of Medicine.

1874

Typhoid Fever.

The name typhoid was first introduced by Louis. Since he applied this name it has been opened to many objections. But for want of a better name it has not been changed. The name is opened to objections because there is many diseases of a low form which the name typhoid has been applied. The German writers call the disease abdominal typhus.

Prof G. B. Wood applied the name enteric fever, because it relates the intestinal lesions. Which is characteristic of the disease. It has been objected to because it conveys the impression that the fever is the result of the intestinal lesio

Symptoms

Typhoid fever is a slow continued fever very gradual in its approach more so then any of the other idiopathic fevers. The forming period may vary from one or two weeks.

The symptoms belonging to the prodromic stage are generaly pain in the back and limbs. head ache lasitude. debillity. Anorexia.

These symptoms are generaly preceded by a chill. or chilly sensations. The patient may keep up during the forming stage. But on account of mental irritabillity he can with difficulty exert the faculties of the mind. The potent attack is compelled to take to bed

When he is weakened by excessive
pains in the back limbs and head.
with bronchitis Chiles or Chilly
Sensations. Generaly diarrhoea and
Epistaxis. This ends the forming
period of the disease. This periods
varies may be one or more. the
average duration is about Six days
When the patient takes to the
bed fever generaly runs high.
The face is generaly flushed in
the early part of the disease. Soon
afterward the face becomes dull
or purplish in color. This discoloration
is due to capillary congestion.
The congestion is cause by obstruction
to the Capillary vessels or coculation
by blood Changes.

Diarrhoea as a rule is almost always present during the first week or at the beginning of the second varry often present during the forming period.

Abdominal Symptoms are diagnostic of the disease in question when they make their apperance. They are present generaly in the early part of the fever. They are generaly recognized by tenderness and pain on pressure over the illiac regions. Tympanitis. Meteorism and gurgling which is cause by movement of wind and water in the bowels. The tenderness on pressure over the abdomen is more frequent in the rite illiac region. can be

explained by the peyerian glands being near the illio coecal valve. The color of the discharges of the bowels are of a dirty yellow or ochre color. There is an eruption characteristic of the fever which makes its approach about the seventh day from the time the patient takes to bed. They occur in isolated spots or papules of a rose color. Hence their name rose colored spots. They generally loose their color on pressure but soon gains it when relieve of its pressure. They are of an oval shape. About three lines in diameter. They are very few in number generaly from ten to fifteen more or less. Mostly found over the abdomen. These spots do

not last long they come in regular crops each crop lasting about three days. They are of a papular form slightly elevated above the skin they are of a pinkish hue, and are soon lost when even pressure. Sudamina. Miliary vesicles sometimes occur. but are not characteristic of typhoid fever. They occur in other diseases. and are very often absent when present they generaly occur about the last part of the second week after the time the patient takes to his bed. Petichiae spots sometimes occur They are not characteristic of typhoid. They occur in all low fevers. And are not a sign of gravity. they occur in mild as well as low fevers.

Delerium in the greater number of cases is present. Generaly occurs about the second week. but in grave cases it very often commences during the first week. The first evidence of delerium the patient awakes from sleep confused. dont know where he is and asks long incoherent questions. The patient talks in his sleep in a low muttering way. very often gets out of bed and puts on his clothes. The delerium is greater during night than it is through the day. The patient is not making asked a question he will answer it in an incoherent manner.

The delerium varies much in character. Sometimes it is of a low muttering form at others times of a violent nature. The patient for the first three or four days suffers for the want of sleep but later in the disease he dont appreciate sleep on account of mental confusion. The patient may doze most of the time but is easly awaken. He seams to lay in a kind of sleepy condition with his eyes open. Very often in an unconscious state when asked to produce is using he tries to do it and for get to withdraw it again leaves it out. This delerium is not due to any complication but to blood poison.

The patient perceptions in the 1st stage of the fever or about third or fourth week is very much blunted. There is not a desire for anything he may be suffering from thirst. he does not ask for water though he be suffering for it. Very often passes his faeces and urine in bed. not from paralysis of the sphincter but through indifference.
Most of the senses of the patient are impaired. Especially the sense of hearing.
The tongue during the first stage has a yellow color but during third and fourth week it becomes brown or black. Looks get this about the death or dark matter.

Exacerbation. The pulse as a general rule is always accelerated. It varies at periods of the disease. Very often reaches as high as 120° or more. Which point is considered very grave and the danger increases in proportion as the pulse increases above this point. As the pulse increases in frequency as a rule it is diminished in force. The average frequency of the pulse is from 100° to 110°. Sometimes it is found below the healthy standard during convalescence. A sudden rise of the pulse is a sign of some complication. The pulse is quick and vibratory increase in frequency but not in power. As the pulse just in proportion as the pulse increase in

frequency the heart becomes weaker
in power. that is the systolic or
first sound of the heart is diminished
in force.

Temperature in high and fever
as a rule the temperature is very
great. Indeed a continued increase
of heat for the first three days
is considered diagnostic of typhoid.
During the first three days it generally
reaches as high as 103°.

The temperature may rise as high
as 106° or more. When it reaches
this height in the morning death
is considered almost certain.

During the progress of the fever there
is a regular oscillation temperature
between morning and evening.

The temperature being greater in the evening than morning.
A sudden rise of heat and frequency of pulse indicates the occurrence of Pneumonia or Peritonitis. On the other hand a sudden fall of temperature below the normal standard is a bad sign. When the temperature gradually passes towards the healthy standard it is a true sign of convalescence

Anatomical Lesions

Typhoid fever has Special lesions characteristic of the disease.
These changes take first in the glands of Peyer and the Solitary glands which undergoes enlargement from the action of morbid poison acting as an irritant & exciting increased vascularity. The glands are sometimes very much enlarged they may be ten or twelve times three or four times above the mucous surface. The glands are of a pinkish hue. They are sometimes swollen and other times enlarged and indurated. These changes take place early in the disease.
These morbid changes take place first in the patches near the caecum and the patches above soon become

effected. But sometimes ulceration is completed in the lower patches while it is hardly commenced in those above. Thus glands ulcerate and their products are discharged by the process sloughing. Sloughing very seldom completed before the second week. The sloughs are often dark from the presence of blood and sometimes yellow from the action of bile on the sloughing products.

Ulceration is the course of sloughing. It may go to such extent that whole glands may slough out and even may extend through the coats of the intestines.

Ulceration of the peritoneal membrane sometimes take place and produce

peritonitis. The period of sloughing generally commences about the third or fourth day, and is seldom completed before the second week. Death very often occurs during the second while ulceration is in progress. Perforation is liable to take place either from ulceration or rupture of the muscular tunics or from slough. If it is due to ulceration the opening will be very small not larger than a pins head. If cause by sloughing or rupture it is generally very large. When these lesions take place death is certain. Gas or feces is discharged in the peritoneal sac and produces peritonitis. These changes is very apt to occur during convalescence

from over eating putting the bow
on the stretch in this way rupt
is very apt to occur. When ulceration
seizes cicatrization takes place
which is the last change of the disc
glands. It has been thought are
reproduced but it has been
denied. Cicatrization never leads
to constriction of the intestine.
Cicatrization is said to take plac
about the third week and conti
ue during convalescence.
Mesenteric glands also undergo chan
on account of their proximity to th
peyerian glands and solitary.
They are some times very much
enlarge. They obtain very often th
size of a pigeons egg. They may

diminish in size as the sloughing process goes on by absorption of the morbid produc. which produces the abnormal lesion. Some times though rair sloughing may take place in these glands, and the discharges escape in the peritoneal sac and produce peritonitis.

Spleen is said to undergo change more than any other organ in the body. It is in a state of congestion also softer and enlarged.

Extravasation of blood from it some times takes place, and is discharge in the peritoneal cavity.

Lungs are very often in a state of hypostatic congestion. Especially in the most dependent part.

heart its walls are soft and
flaccid. The blood in the cavities
after death is of a liquid chara
of the patient died from the fever
without complications. The fi
of the blood is diminished in this
as in all other idiopathic fevers.
Brain is very often in a state
of congestion with a serous eff
in the lateral ventricles and in th
subarachnoid space. There is no
any evidence of meningitis after
death this complication is
considered very rare.

Excavation

The true cause of Typhoid fever is not yet known. In regard to its cause there is difference in opinion among different authors. Some hold the opinion that it is contagious and have given strong proof of its contagiousness. But it has been proved by a majority of the profession that it is not contagious. It is certain the disease can be communicated from the sick to the well some way. which way we do not positively know. whether by contagion or not as it is sometimes not. The disease has occured in one member of a family and every one in the family becomes effected shortly after. This is

a strong proof of contagion. This is now explain by bad ventilation the house or room in which the sick are kept is not ventilated it becomes poisoned with the air exhaled from the sick.

Those who are in the house is very apt to become affected by the poisoned being breathed by them. Which is constantly emanating from the sick Chamber. There is another precaution. That the excretions discharges being kept in the room and the emanations from them inhaled by the folks in the house. which explains I think of diseases going through families.

We is now suppose that an

endemic of the disease has been produced by cruting the excreta in proximity to wells. the excreta finding its way in wells through some channel or by absorption or privies being near the well and impregnating the water with its contents. it has been traced directly to such causes. Persons living in close filthy places are liable to the disease. Depressing causes of all kind may produce it. Debility. Anxiety fatigue. Typhoid fever may occur and may not be able to trace it to any cause. It may occur in any clymate and during all periods of the year. But seems to seek autumn in preference to

the other season. The reason of this
there is a greater decomposition
of animal and vegetable Subs-
tances during this season than at
which is thought to be a cause
of the fever. Age also is a predis-
posing cause young persons are
more liable than the old.
The age in which the disease is
most frequent is between 15 and
30. The frequency after this period
diminishes. And is very rare after
40. Seldom ever occurs after 50.
Though cases do occur after this age
It is also rare in childhood.
The explanation of old people being
so much less susceptible than
young and middle age folks

that the glands of Peyer diminish with age. After the age of 45 they are if not entirely gone. Sometimes they dont disappear until 60. which glands are the principle lesions of the fever.

Diagnosis. Typhoid fever is to be descriminated from Typhus and remitting fever. The differential diagnosis must be made between Typhoid and Typhus. By the presence of those diagnostic Symptoms peculiar to Typhoid and the absence of those which are characteristic of Typhus. So Typhoid the abdominal Symptoms are diagnostic of Typhoid when present. Tenderness on pressure in the iliac regions. Tympanitis. Diarrhea

The forming stage in typhoid is long and slow. While in typhus the duration the duration is very short. In typhoid we have the rose colored spots which is papular and will readily disappear on pressure. In typhus the eruption is macular and of a dark red color and will not disappear on pressure. In typhus the skin is much darker than typhoid, which as a general rule is of a dark brown hue.
In typhus constipation is the rule. In typhoid diarrhea is one of the first and most constant symptoms. The differential diagnosis between typhoid and vomiting is to be made. In typhoid the fever is

a continued one making a slow and
steady progress without abating.
In remittent there is a remission
of the fever in every twenty four
hours. But sometimes the remissions
are so slight without the aid
of a Thermometer it is almost impossible
to make a diagnosis between
the two. The presence of the abdominal
symptoms will decide Typhoid
Typhoid may be confounded with
local affections with certain zymotic
diseases. Which diseases are ushered
in with increase temperature.
but are more abrupt in their
occurrence. with a knowledge of the
phenomena of Typhoid will
exclude any local affection.

Acute Tuberculosis may be mistaken for typhoid fever. The former can be distinguished from the latter by the frequency of the respiration and cough being greater with haemoptysis in the majority of cases. and physical signs. with the general phenomina peculiar to typhoid. They can be easily discriminated from each other.

Pneumonia also may be mistaken for typhoid with the presence of the physicle signs of the former. and general phenomina of the latter we can without difficulty diagnose between the two. Typhoid fever may be complicated with primary enteritis as there is great tenderness over the abdomen and increase in temperature in the

beginning. Especially in children as some of the phenomina of Typhoid are often wanting. Especially the characteristic eruption. but in all cases the phenomina of Typhoid should be sought for if present it will exclude tuberculosis.

A good diagnostic point is the use of a Thermometer. When this instrument shows a steady increase of heat for the first three days reaching as high as 103 the diagnosis can be made with almost certainty providing complications are excluded. The Thermometer will show an increase heat up to 103° or 104° without falling is a pretty sure sign of Typhoid. before its phenomina make its appearance.

Prognosis

It should be applied under the tongue or axilla.

Prognosis. Typhoid fever when not complicated the greater majority recover, the mortality varies at different periods and places at different times. Age modifies the prognosis to a great extent. Mortality greater in young patients under ten years of age than it is between fifteen and thirty. After thirty the mortality begins to increase. In old folks the prognosis is very grave, Cronic or preexisting disease which has debilitated the system previous to the disease in question is very unfavorable. The severity of the abdominal symptoms with

hemorrhage is unfavorable.
Weakness of the and the first sound of the heart with prostration the prognosis is very unfavorable.
Pneumonia is another very unfavorable complication.
Uremic coma is a complication is to be dreded. Convulsions are very apt to occur and death is almost certain follow.
We must not forget the liability to the perforation of the coats of the intestines as it is liable to occur at any time during convalescence. And by the passage of gas and feacle matter into the peritoneal sac sets up peritonitis. which complication is hopeless recovery not to be look for

If the disease occurs during pregnancy abortion very often occurs which is certain to be followed by death. Death may occur from bed sores they may take place on those parts most exposed to pressure.

When the temperature is increased to 106 the danger is great

A temperature as high 106° to 108 is a fatal prognostic sine.

Delerium. Subsultus Carphologia or other marked ataxic symptoms are very grave, on the other hand so long as are grave ataxic symptoms are absent the temperature of the surface not very great. not exceeding 104°. the pulse not feeble with absence serious complication the prognosis is gr

Treatment

Treatment of Typhoid fever. As this fever is a self limited disease there is no known remedy that will arrest it. Our principle dependence must be placed on the judicious treatment. That is to support and treat symptoms as they occur. There has been certain drugs lauded as Specifics. But at present the general opinion of the profession that there is no real Specific, among those that have been recognized is the Sulphites. Which was thought by Dr Polli to be capable remedy of all Zymotic diseases. Beneficial in arresting the fermentation that is going on in the blood. They have been used by a number of

the prospection and is still in use with advantage it is thought but not recognized as a Specific. The Sulphites of Magnesium and Sodium is the one mostly in use. Generally given 10 or 15 gr every three or four hours.

Quinina in large doses was also thought to assist or modify the fever but is now known to have no effect beyond its Tonic power.

Therefore finding no remedy that must or the disease we must pay Special attention to the laws of Hygine and Supporting means. Ventilation of the room in which the patient is sick. The temperature should be kept as near as possible

60° Fahr., When the pulse runs high in the first stage of the disease skin hot and dry Nitrus powder should be given in 10 gr doses. and sprung the surface with cold water use ice internaly or ice water. If the cerebral symptoms are marked the head should be shaved and ice cap applied. Care should be taken not let it remain to long and distroy vitality. To use it judiciously it should be watched carefuly and removed as soon as heat is reduced, and reapplied as soon as there is an increase. Mineral acids have been use with great success. They show a great reduction in mortality under their use. The percentage of death is 1 in 9.

While without the acid treatment the percent of dathr is 1 in 5. They owe their therepeutical propeties to the neutralization of the access of alkalinity in the blood during the fever, and also its great tonic power.

Neter Muriatic acid is mostly used give 10 minims of the former. 15 of the latter every three hours. Dilute Sulphuric acid some times used in 15 drops in a glass water.

Compound tincture of bark is a good tonic, and very often used.

Delerium is some time a prominant symptom showing gravity it should be relieved with Bromide of Potassa and Hydrate Chloral or Opii.

When nausea or vomiting occurs it

Turpentine this should be given in 10 drop doses every two hours. The coating is apt to recur.

Alcoholic Stimulants are indicated when the pulse is increased in frequency and the first sound of the Heart diminished in force. which indicates debility. The patient about this period is in a low State of muttering delerium with sordes about teath. Cases for Stimulants. Alcohol is the best. They should be given in small doses at short intervals. half ounce of brandy should be given every hour. its effects carefully watched. If the the pulse diminish in frequency and increase in force delerium abate temperature abate under this use

the Stimulants are during good.
On the other hand if they aggravate
these symptoms they are during
harm and should not be used.
The patient should be supported
through the disease with nurishing
diet of a liquid form, Milk. Beef
essence and eggs form a good diet
whine wey also is a good diet.
During convalescence the patient should
be allowed to have solid food. Carefull
not let him eat to much and
produce perforation of the walls of the
intestines. Excess should be avoided
by taken food at short intervals.
The patient during convalescence may
be anaemic or his blood poor in
quantity & quality. Quinine and Iron.

should be restrained by lime water and milk. When diarrhoea is in excess it should be checked by Opium and astringents tannic acid & acetate of lead being the best or Laudanum & enema. The diarrhoea should not be checked altogether only reduced in frequency when excessive. Constipation sometimes requires treatment. A laxative enema and when there is gas in the bowels turpentine should enter in the enemata. Peritonitis sometimes occurs from perforation of the intestines. This requires prompt treatment Opium is the drug to be relied upon. It should be given in long doses to quiet peristaltic action. And keep

the patient at perfect rest. Hemorrhage is very apt to accur with the perforation. Sometimes it is dangerous in character. It should be checked by astringents. Tanic acid and acetate of lead with opium is the best.

Turpentine is generally indicated about the tenth day. As soon as intestinal ulceration becomes marked which is shown by dry hot and red tung having a shining apperence there is a strong indication for turpentine. It has a healing influence on the ulceration of the glands. And diminishes gass in the bowels when present. When the tung parts with its fur leaving the tung in a red hot shining condition

An

Inaugural Dissertation

On

Acute Lobar Pneumonitis

Submitted to the examination

of the

Provost - Regents, and

Faculty of Physic

Of the

University of Maryland

for

The degree

of

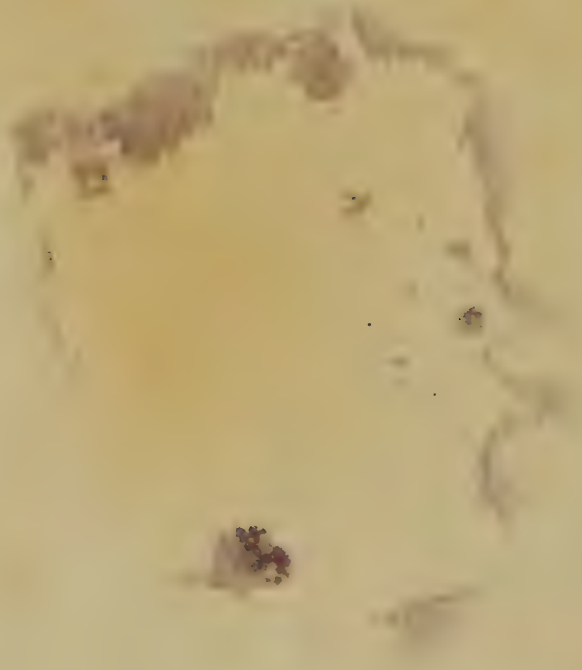
Doctor of Medicine

By

B. H. Todd

Of Maryland

Feb. 10th 1874.



"Art. Lobar Pneumonitis"

Pneumonia is applied to an inflammation affecting the parenchyma of the lungs, which is composed of air vesicles held together by cellular tissue through which blood vessels ramify. There are different varieties of this affection, all of which have been classified according to their origin, extent, or duration. That involving one or more lobes of a lung, and denominated Lobar Pneumonitis is the most common; The inflammation attacks in the great majority of cases the lower lobes of the lungs and that of the right, other than the left. Of 121 cases reported

by Flint the lower lobe of right lung was affected in 29 cases, the lower lobe of left in 25, the whole of the right lung in 27, and the whole of the left in 9 cases. The upper lobe of right lung was diseased in 8, and the upper lobe of left involved in 3; thus showing that not only is the lower lobe of the right lung the one most commonly affected, but that the right lung per se is more frequently involved than the left. The inflammation does not invade the whole of the lobe affected, simultaneously, but begins at in

some part of it, and then extending from lobulets to lobulets, until the whole lobe is involved. When a new lobe is affected it is always the seat of a new invasion, and not by an extention of the inflammation from the inflamed lobe. In Pneumonitis there are three well marked stages exhibited, each stage having its own well known characteristic pathological condition. The first stage, or that of Engorgement, the lung is in this stage in a state of active congestion, is of a deep red color, more compact and heavy, but

withstanding its increased density is still floated upon water, the Cells are not yet consolidated; though somewhat distended by extravasation they still contain air, when pressed it retains the impression of the finger, and exudes abundantly a bloody, turbid, and frothy serum. From this stage it passes to the 2ond stage, termed Stage of Solidification or Hepatization, and which is characterized by a still greater congestion, and effusion into the vesicles, cellular tissue, and smaller bronchial tubes, When cut the lung bears a striking resemblance to the liver, and on this account

is said to be hepatized. It sinks in water, does not crepitate on pressure, but discharges a bloody serum. During this stage of the disease, softening of the lung is sometimes so great that a finger may be passed through it with but little resistance.

The 3rd stage is that of resolution, when the disease takes a favorable course, and absorption of the exuded is going on, or the purulent or suppurative stage, if the inflammation progressing ends in suppuration or purulent infiltration. When this occurs the disease is inevitably fatal

The duration of these different stages vary much in different cases, the progress of this disease, and its transition from one stage to another, may be very accurately determined from day to day, and hour to hour, by means of the physical signs.

The general symptoms of Pneumonia are first chill more or less decided, followed by fever, difficult breathing, cough, and pain inside or front of of chest; the pain may either precede, account pany or follow the beginning of the fever, in the commencement it is frequently acute lancinating,

and in all respects similar to that felt in Acute Pleuritis, and which proceeds from the participation of the pleura, covering the affected portion of the lung, in the inflammation. Frequently, instead of the pain already described, there is a dull aching sensation, or a feeling of soreness, weight, heat and oppression. The pain is referred to the side or anterior part of the chest, and often to the epigastrium. Thin-sap it is usually referred to a circumscribe space, at or near the nipple of the af

=fected side, Occasionally it is wanted altogether, or if present is rendered sensible only by a deep inspiration, or by percus=sion. The breathing is always quickened, increasing usually with the extent and violence of the inflammation, and the consequent solidification of the lung. The number of respirations may reach as high as fifty.

Cough is generally present at, or soon after, the invasion; it is sometimes violent and painful, at other times little or no pain at all is felt; the cough a

accompanied with Expectoration, which is at first a scanty, transparent, and viscid matter; it soon assumes characters which are highly distinctive of the disease, becoming semitrans=parent, adhesive, more or less stained with blood, so as to have a redish or rusty color; it is in consequence of this color that it is commonly called the rusty sputa. As the disease advances these properties of the sputa become more striking. in the advanced stage of the disease it often assumes a yellowish or greenish tint, as if [illegible]

with bile, this however is not the case, The Spata has often the appearance of "prune juice" and is known as the prune juice Expectoration, this is always considered a fatal sign, The Rusty Expectoration is sometimes wanting, but when present is probably the most favorable or characteristic General symptom of Pneumonitis, it often indicates its existence when the physical signs fail, Fever is uniformly present, and like the preceding General symptoms, varies much in degree, the temperature of body

usually reaching, Especially on the 4th and 5th days 102° F to 103° Fah, Sometimes during the evening, when the fever is always the highest, it reaches 104° to 105° Fah, in the axilla. An increase above the last is always accompanied with danger, If the temperature extends beyond 108° F, all hope of recovery may be given up, death is inevitable,

The fever often has a remittent type, the exacerbations occuring daily, in the evening, and always accompanied with an increase of

all the Usual Symptoms,
The pulse is also varying in strength and frequency, depending on the Condition of the sufferer.
Delirium is of common occurrence, and is always an unfavorable symptom.
The Urine is scanty and high Colored, Contains an excess of Urea, but is deficient in the Chlorides, especially in the middle of the attack.
Vomiting and Diarrhoea are symptoms of occasional occurrence, the latter more especially in the advanced stage of the

affection.

The height of the disease is usually reached by the 5th or 7th day. The disease may terminate in resolution, in death in 2nd stage from asphyxia from exhaustion during the 3rd stage; by abscess or gangrene. Recovery after purulent infiltration has taken place is rare.

Physical Signs. To the general symptoms are added the physical signs, and which are of the highest importance in the diagnosis of Pneumonia, since they afford some evidence

of the nature of the disease, when all the general signs fail.
In the 1st Stage there is moderate dullness of resonance, on percussion over the affected side, not sufficiently decided as to serve for positive diagnosis. Auscultation is more decisive; by this it may be seen that the healthy vesicular murmur is giving away to that sound so characteristic of this disease the "fine Crepitant rale" that whenever heard the existence of pulmonary inflammation is clearly indicated; and the progress of which can

be traced with considerable accuracy by marking progress of its attendant sound. As the the disease advances into the second stage the lung becoming consolidated, instead of the fine crepitation we have a bronchial respiration, and bronchophony, percussion yields a very important sound in this stage, namely, decided dulness, and sometimes flatness in the portion most consolidated, if the inflammation continues and assumes the suppurative stage, increased flatness over the [illegible]

with a mucous rale, If an abscess forms, a gurgling rale, if the cavity contains liquid, and a pectoriloquy with cavernous respiration, if it be empty, will be the diagnostic signs. If the inflammation is arrested in the first stage, the crepitant rale gradually ceases, and the vesicular murmur of health is again heard.

If resolution takes place after the establishment of the second stage, the signs characteristic of this stage, vanish by degrees; Crepitation returns, though somewhat modified

-ing the character of the sub-
-crepitant-rale, in consequence
of the more fluid nature of
the secretion, this in its turn
gives way to the inspiratory mur-
-mur the return of which to-
-gether with the healthy reson-
-ance on percussion is evidence
of a restoration of the lung to
its former healthy condition.

Diagnosis

Pneumonia is liable to be
confounded with Pleurisy, from
which it may be distinguished
by the absence of the sharp lan-
-cinating pain, the friction sound,
by the presence of the

and crepitant-rale. This-
Pneumonia, and from which it
may be told by the dullness on
percussion, Crepitant-rale, bron-
chial respiration and bronch-
-ophony. Pneumonia may also
be diagnosed from Phthisis
by the sputa, the sudden onset
and fine Crepitations, together
with the history of the attack.

Prognosis

The prognosis
of this disease depends upon
the severity of the inflamma-
tion, the extent of lung in-
-volved, the condition of the
patient, the time

which it may be connected, as an intercurrent affection, its complications, and the age of patient. Uncomplicated Pneumonia, especially when only one lung is affected, always tends to recovery under favorable hygenic regulations, and judicious treatment. The danger depends not so much upon the disease *per se*, as upon the coexisting affections, or circumstances, together with the mode of treatment.

Treatment

A few years ago, bleeding, blistering, purging by Calomel

and starvation, was the r treatment, this has now been set at variance, by reason and experience, as a decided by injudicious plan.

Prof McSherry adopts altogether the Expectant treatment, meeting occasions as they arise.

If the patient, in the beginning of the inflammation, has high fever, quick and hard pulse, denoting increased power of the hearts action, and has a robust plethoric constitution, a moderate amount of blood taken from the arm will always be beneficial.

by relieving congestion and unloading the right side of the heart. The bowels are to be kepted open, by saline aperients. Opium is indicated in all stages of the disease, and should be given in small doses, to relieve pain, and tranquil-ize the system, this given at stated periods, preceded by a saline purgative, with turpen-tine stupes, or warm fomen-tations to the chest, will gen-erally meet all the indications pertaining to the first stage.

The treatment of the second stage has for its object the

promotion of resolution, by absorption, palliation of symptoms, and sustaining the powers of the system. Blood letting is not admissible now, nor is blisters beneficial, on account of their interfering with physical examinations, and the disturbance which they generally create. Applications of Tinct-Iodine to the affected surface will prove useful, the chest should be covered with an oiled silk or muslin jacket; thus keeping the surface moistened with perspiration; to this add a flannel covering and all

the benefits of a poultice will be gained. Opium is a highly beneficial remedy also in this stage. It is indicated not only by the continuance of pain, but by wakefulness, restlessness, and symptom denoting constitutional disturbance. If there is high fever, hot skin and quick pulse. Sedatives, as Tartar emetic in one-eighth or one-quarter of grain doses, every two or three hours, during the febrile stage. Aconite or the Veratrum viride may also be given, being careful not to cause any depression.

Supporting measures should be used, as soon as this discovered insufficient to carry the patient through the disease, Nutritious diet, tonics, and alcoholic stimulants, Good food should be taken throughout the whole course of the disease, Milk, oceftea, and substances farinaceous in character should form the diet. Of the tonic remedies Quinia is the best, It is indicated in undue depression of the system, and may be continued during the progress of the disease, Alcoholic stimulation is here, as in the

essential diseases, a very important part of the supporting treatment, and are indicated in proportion to the danger from failure of the vital powers. No set rules can be given, suitable for all cases, observation must furnish the rule proper to each individual case. Given in small doses, the effect must be watched, and the quality increased in proportion to the urgency of the indication.

Whenever the question arises, in the management of a case, whether Alcoholic stimulants be advisable or

not, it should be borne in mind that to begin earlier than they are required is far preferable to subsequent delays for with proper care they can be suspended without any injury having been done, whereas the time lost by beginning too late cannot be regained.

A Thesis

on

Acute General Peritonitis,

Respectfully Submitted

to the

Provost, Regents and

Faculty of Physic,

of the

University of Maryland,

By

Alexander Hill,

of

Virginia.—

1874.—

Acute General Peritonitis.—

Before discussing the symptoms, diagnosis etc. of the subject under consideration, it becomes us at the outset, to glance at the peritoneum in an anatomical point of view.—Anatomy teaches us that the peritoneum is, like the pleura, a membrane thin, transparent & serous, slightly extensible with a moderate degree of elasticity, forming a shut sac & lining the pelvic & abdominal cavities.—In the female, however, the peritoneum does not form a complete sac, for the two Fal-

lopian tubes, at their free extremities, open into its cavity. — The portion of this membrane which is applied to the pelvic & abdominal walls, has received the name of parietal, whilst that investing the contained organ or organs the visceral layer. — Hence the viscera are not contained within the sac, but are placed behind or outside of it. — The inner surface of the peritoneum is free, smooth & polished, being lined with a squamous epithelium. — The external or parietal layer is loosely adherent to the fascial lining the abdomen & pelvis, but is more

firmly united along the median line of the body in front, as also with the under surface of the diaphragm. — The visceral, thinner than the parietal, layer forms a more or less complete investment to the pelvic & abdominal viscera. — Such organs, for example, as the liver, spleen, stomach being entirely surrounded by peritoneal membrane. — Other parts there are, however, as the two lower portions of the duodenum, the cæcum, the ascending & descending colon, the middle portion of the rectum & upper part of the bladder which receive only a partial investment from the peritoneum. —

Over a few points it passes without forming any distinct coat for them, as the kidneys, pancreas & supra-renal capsules, whilst the lower end of the rectum, the base & neck of the bladder, the prostate, & the lower portion of the vagina are totally void of any peritoneal covering. — Having now made this brief & imperfect anatomical sketch of the peritoneum, let us next proceed to the consideration of the disease under discussion, treating of it in the following order: first its definition, next its anatomical characters, Symptoms, causes, diagnosis, prognosis & lastly its treatment. —

Definition.—Peritonitis, as its name implies, is an inflammation of the serous membrane lining the cavity of the abdomen & pelvis, & covering the organs contained therein.—

Anatomical Characters.—The anatomical characters of peritonitis do not differ essentially from those of any other serous inflammation, as pleuritis or pericarditis.—Were we able to examine the peritoneum in the incipient stage of inflammation, doubtless the only lesion which we should find would be a morbidly bright arterial hue.—The membrane becomes dotted with a number of small red points, which become confluent & form streaks & patches, which in turn coalesce; or a small central nucleus

of inflammation may form, which becomes diffused over the whole extent of peritoneum. In addition to its redness the membrane loses its transparency, & presents a milky aspect, observable in the interval between the red points. Losing also its tenacity, the membrane is more easily detached from parts beneath, so that shreds may be separated after death. This inflammation may terminate by resolution, or it may advance to the stage of effusion. - The serous exhalation increases, & accumulates in the cavity of the membrane. After a short time a fibrinous exudation takes place, which at first is a thin, viscid almost colorless layer; but it soon becomes more copious, &

of a yellowish cast. — This in a short time is penetrated with bloodvessels, & forms an adventitious membrane, which unites the apposing peritoneal surfaces, & agglutinates the folds of the intestines, & causes the viscera to become adherent to each other & to the pelvic & abdominal walls. — This layer, in advanced cases, is several lines in thickness, having an irregular, rough surface, which gives rise to the friction sound often heard during life. — The serum, which was at first clear & limpid, assumes a turbid appearance, & contains floating flakes of lymph of a yellowish or whitish color, identical in character with that adherent to the surface. — In conse —

quence of the fibrinous exudation, the adhesions formed may take the character of numerous little sacs, which, being filled with liquid, give rise to the irregularities sometimes observable during life. — If the disease depend upon perforation of the alimentary canal, then so soon as the peritoneal cavity is incised, gas will escape, which will be more fetid, according as the perforation has taken place lower down. — By observing also the character of the contents of the peritoneal cavity, we will be able to diagnose, with considerable certainty, the organ which was the primary seat of perforation. — Thus, if we find portions of undi-

gested food, we will conclude that it is the stomach, if faecal matter, then the colon. — Sometimes the perforation is so small as to elude observation; but it can usually be ascertained by taking the bowel & carefully squeezing from above down, & noting from what point the substances exude. — Although vomiting is at times a very prominent symptom in this disease, yet it is only in exceptional cases, that the peritoneum investing the stomach becomes the seat of inflammation. — Clinical History. — Peritonitis is usually developed suddenly, but at times it is gradual in its approach. — The first

preliminary symptom, which ordinarily presents itself is shivering, through rigors & pain may be of simultaneous occurrence. — The chill is quickly succeeded by febrile heat of the surface, whilst the pain becomes acute, sharp & lancinating, being usually at first of greatest severity in the hypogastric, or one of the illiac regions, whence it is gradually diffused over the whole abdomen. — The pain, as the disease progresses, increases in violence, is constant, & so exquisite, that the slightest pressure upon the abdomen gives rise to the severest agony that human

nature can endure. – It is for this reason that the patient almost invariably selects the dorsal decubitus, the pressure of the viscera upon the peritoneum, in this position being a minimum. – He lies motionless, because the slightest movement occasions pain, & therefore pain. – His legs are flexed upon his thigs, & his thigs upon his pelvis, so as to relax the abdominal muscles, & remove the weight of the bed-covering. – The acts of sneezing & coughing occasion intense pain, hence the patient entuitively shrinks from them. – The respiration is costal. – The

pulse, which is generally very rapid, mark-
ing from 110 to 130 per minute, is small
& tense. — From near the commencement
of the disease, there is a feeling of hard-
ness & tension in the abdominal pari-
etes; tumefaction soon begins, & grad-
ually assumes a tympanitic char-
acter. — The swelling is ordinarily
uniform, but is sometimes irregular
presenting to the hand the sensation
of a tumor or tumours. — In the be-
ginning, percussion elicits the nor-
mal resonant sound, but to this
quickly succeeds marked dullness. —
After a short duration of the

complaint, auscultation offers a friction sound, being produced by the grating of the opposed peritoneal surfaces, which have been roughened by the layers of coagulable lymph. — As regards the digestive apparatus, we find the tongue moist, & coated with a whitish or yellowish fur. — The bowels, as a rule, are constipated, though this condition may give way to diarrhoea. — Retching & vomiting are frequently very prominent symptoms. The urine is scanty & high-colored, being in some cases retained, & requiring the use of the catheter. — There is oc-

cafionaly acute pain in the penis, & ve-
nereal desire has been known to be-
come a prominent feature. — The coun-
tenance of the patient is anxious & hag-
gard, & denotes great gravity of disease. —
((casionally the upper lip is drawn
tightly over the gum, &, when present, is
an important point. — The intelli-
gence is, as a rule, preserved entire,
even to death. —

Causes. — Acute idiopathic peritonitis,
exclusive of the puerperal form, is a
medical curiosity. — Unlike the pleura
or pericardium, & yet equally exposed,
the peritoneum is capable of offer-

ing far greater resistance to the ordinary causes of inflammation, thus beautifully evincing the conservatism of nature. — In the vast majority of cases, peritonitis is incidental to an antecedent affection, & exclusive of its occurence in childbed, is most frequently caused by perforation of the alimentary canal. — This perforation is produced by ulceration, by mortification, & the separation of sloughs, or by the rupture of the walls of a cavity by an extraordinary distending force. — Thus gastric ulcer, hepatic abscess & the rupture of an aneurism

may all produce peritonitis.— Mechanical violence, as the kick of a horse, operation for stone, & for strangulated hernia, etc. are occasional causes.— Vicissitudes of temperature, errors of diet, suppression of habitual discharges, infection of the cavity of the uterus occasionally operate as causes.— Like other serous membranes, it is also liable to become the seat of inflammation during the existence of renal disease, & articular rheumatism has been known to stand in a causative relation.—

Diagnosis.— By careful attention to the acute & lancinating pain, to the

extreme & diffused tenderness of the abdomen, with its tympanitic condition & excessive rigidity of its muscles, the diagnosis will ordinarily be easy. — Prognosis. — In considering the prognosis of this disease, we are forced to admit, in spite of all that we may do, that death is the rule, & recovery the rare exception. — An unfavorable prognosis is denoted by increasing feebleness & frequency of the pulse, increasing prostration, coldness of the extremities, hiccough, regurgitation, etc. —
Treatment. — Mercury & the Lancet have here, as in other inflammations, had their

day; but under certain circumstances local depletion may be resorted to.— Thus if you find a single spot of tenderness, it is probable that the inflammation has not extended beyond here, & this tendency to spread may often be obviated by the application of Leeches.— But the remedy which offers the best results in the treatment of this disease is opium & its various preparations, which act by securing that most desirable of all objects, rest, & secondly by lessening the calibre of the bloodvessels, & thus directly diminishing the inflammatory process, & thirdly by checking

oxidation & relieving pain. — In this disease the nervous System is powerfully preoccupied; hence the amount of opium which can be taken, is, at the first glance, almost appalling. — We usually give from Morphia gr½ to gr i at a dose, & repeat every two or three hours, according to effects produced. — We must carefully guard against undue narcotism. — Such is the principle treatment of peritonitis. — The other measures, which are secondary comparatively, are quietude of body, the use of the catheter when required, the avoidance of cathartics, & the application of warm fomentations, which are often grateful & efficacious.

Alexander Hill

Virginia. —

1874

An Inaugural Dissertation on Hyperaemia of the Conjunctiva.

Submitted to the examination of the Provost, Regents, and Faculty of Physic, of the Maryland University of Medicine, for the Degree of Doctor of Medicine.

by

James W. Gurley.

Hyperaemia of the Conjunctiva.

Symptoms.

Uneasiness or pain, the amount of either being governed by the peculiar idiosincrasy of the patient. The patient seldom complains of anything more than a sensation of grit or sand in the eye, this symptom however being less marked in elderly people than young, on account of the muscular fibers of the orbicularis loosing their contractile power, the lids being pressed less firmly against the eyeball. If the patient is exposed to the glare of the sun or to a bright artificial light he experiences a sense of weariness

and irritation of the eyes which is augmented on reading or doing fine work. The secretions from the lachrymal and conjunctival glands are increased in quantity, but not altered in character. The swollen and congested state of the mucous membrane of the lids extends to the lining membrane of the puncta and canaliculi, the natural passage of the tears into the nose being plugged up. They collect in the inner corner of the eye and overflowing induce the lachrymation complained of.

Causes.

The causes of hyperaemia of the

conjunctiva are various— viz.
Glare of the sun, smoke, exhalations,
foreign bodies, miasmatic influences,
ammoniacal gases, and all manner
of putrescent filth, inverted eyelashes
brushing against the cornea keeps
up persistant irritation and hyperae-
mia. Disease of the retina may
by reflex action cause congestion of the
conjunctiva, and among hypermetropics
the accommodating power of the eye is
overstrained in order that the necessary
convexity of the anterior surface of
lense may be maintained, and hyp-
raemia of the conjunctiva is the result.
Congestion of this membrane may
arise from a faulty state of the

digestive and secreting organs,- thus the dyspeptic and gouty, and those that suffer from portal congestion and disorder of the kidneys, from suppressed catamenia and other similar conditions, are very prone to attacks of conjunctival hyperaemia, the moist and blood shot eyes of the intemperate are but too familiar.

Diagnosis

In simple hyperaemia of the conjunctiva, it may be recognised by the following appearances, on everting either the upper or lower lid a number of small redish bands or streaks may be traced beneath the

conjunctiva, extending perpendicularly backwards from the margin of the lids; they mark the position of the meibomian glands, and as they are situated beneath the mucous membrane, it follows that if the conjunctiva is congested these glands will be more or less concealed. In hyperaemia, we notice that the palpebral conjunctiva is not only injected, but that its surface is no longer smooth. This arises from two causes — first that its villi become prominent from the turgid state of the vessels which they contain, and secondly its glands are thrown into increased activity, and become

enlarged, giving the mucous membrane a rough appearance, particularly in the tarso-orbital fold, which is also somewhat swollen, from the serous effusion poured out into its loose cellular tissue. The orbital conjunctiva is only slightly affected; it may be that its superficial vessels are congested, in which case they may be seen coursing over the sclerotic, in a reticulate manner towards the cornea. We meet with a hyperaemic condition of the conjunctiva, in aged persons, which should not be considered in its self as an indication of disease. The enlarged vessels may be readily made to slide over the surface of the sclerotic, by

gently pressing upon and moving the mucous membrane under the point of the finger: the vessels of the congested conjunctiva again are most marked towards its palpebral fold, and generally decrease in number and size as they approach the cornea; the large vessels moreover are separate and distinct from one another, and are of bright scarlet or vermillion colour.

Prognosis.

The prognosis is favorable, where the patient will observe the proper remedial and sanitary means; but if these are neglected, for a sufficient length of time, the simple hyperaemia will

pass into the graver forms, such as, Muco-purulent, Purulent, or Granular conjunctivitis, rendering the prognosis more unfavorable.

Treatment.

The treatment should as far as practicable be directed towards the removal of the cause of the disease, for instance the eye may be protected from the glare of the sun, or from dust by neutral tint or blue glasses. Astringent lotions composed of one to two grains of sulphate of zinc to an ounce of water are very beneficial in hyperaemia; or the acetate of lead, one grain to the ounce of

water, is probably preferable, providing there are no lesions about the cornea. Direct the patient to have some of the lotion poured into the angle between the eye and the nose, while his head is thrown back, then by opening the lids, and everting the lower one to allow the fluid to run into the eye. This should be repeated frequently during the day; as it tends to constringe the dilated vessels of the conjunctiva, and thus accelerates the stream of blood passing through them, inducing a more healthy action in the part. At night the patient should be directed to smear an ointment, of red oxide of mer-

cury containing twenty grains to the half ounce of cocoa butter.
The pathological changes being apparently confined, in simple hyperaemia, to dilatation of the vessels, either through defective nervous influences or a faulty interchange between the blood and the tissues, we may rely upon the simple treatment above indicated to restore the parts to a healthy state; and, on the same principle, we may order the patient to use cold water douche, to close the eyelids, for ten minutes, night and morning. Cold compresses are recommended; they are most refreshing, and may be applied over the closed lids with great advantage for fifteen minutes

at a time, especially after a day's work. The water employed should not be too cold, or excessive reaction may follow its use. When the hyperaemia depends on overstraining the eye, our first care must be to protect the organ by rest. Where the affection is associated with visceral disorder, we may may often have to attack the congested conjunctiva through a judicious use of alteratives, and similar remedies rather than by local applications. Frequently abstinence as regards tobacco and alcohol, must be enjoined, overloading the stomach with food must be prevented, and some mild laxatives

used. probably in combination with blue mass. In cases where the patient is anaemic, tonics, such as the preperations of iron. good dietary, exercise, together with cold water douche should be used. It is hardly necessary to remark that if hyperaemia depends on the presence of a foreign body in the eye, the offending substance must be removed; if inverted eyelash for instance, must be carefully extracted, as a single hair may be sufficient to keep up such an amount of hyperaemia as to render the patient unfit for ordinary work, and unless the offending object is removed the disease will certainly

persist. It is well after extracting an eyelash under these circumstances, to run a needle, armed with nitrate of silver, down to the bulb of the hair, and by exciting a slight amount of inflamation, to destroy the bulb and prevent the hair from growing again.

Hyperaemia of the conjunctiva, depending on hypermetropia, may be cured by a judicious selection of convex glasses. Adapted to relieve the overstrained muscular aparatus of the eye.

1874

An Inaugural Thesis
On Rheumatism -
Respectfully Submitted
to
The Provost, Trustees, and Medical
Faculty, of the
University of Maryland
for the
Degree of Doctor of Medicine -
by
J. Abram Dawson.

Acute Rheumatism.

Acute Rheumatism is an inflammation of the fibro fibrous tissues of the body; involving most frequently the large articulations. In some cases it attacks the internal organs also. The serous surface of the pericardium and the lining membrane of the inside of the heart, the endocardium, especially that part which is reflected over the valves of the left side of the heart is extremely liable to be affected by inflammation in the acute form of rheumatism. The attack usually commences suddenly; the fever and local manifestation, either occuring together, or the fever preceding the local

phenomena. Sometimes there is a pro-
dromic stage; the period preceding to
the complete development of the dis-
ease, during which period, there is a feel-
ing of malaise, with pains in different
parts of the body, and soreness about
the joints, and down the region of the
spinal column; soon there is fever
usually preceded by a rigor, when
the disease may be considered as ful-
ly developed. The disease is extremely
irregular as regards the number of
joints affected; sometimes only a single
articulation is involved in the whole
course of the disease; at other times
there is hardly a joint in the whole

body but what is affected. It is one of the peculiarities of the disease, to shift from joint to joint; the inflammation may suddenly subside in one joint and suddenly attack another. Corresponding articulations are often affected together, and when this is not the case, the different affected joints are either on one side of the body, or joints on the two sides which are analogous are affected. The law of paralelism is nearly always observed in cases of rheumatism, with regard to the local phenomena. The affected joints present all the signs of inflammation: heat, swelling, pain, and redness. The swelling is due to

the increase of effusion within the sinovial membrane, and surrounding structures, and is often seen at the knee and some smaller joints, and also at the hip, on account of the muscles that surround it. The pain is of the most excruciating character — especially on movement; the slightest pressure, even the weight of the bed-clothes, causes great distress to the patient. Over position is likely to take place, giving the person the appearance of one paralyzed; which is really not the case — it is the great pain that movement occasions, that admonishes the sufferer to remain quiet, and not the ina-

bility of the muscles to act. Acute rheumatism is always accompanied by fever, though not dependent upon the local manifestation as regards its severity, nor always upon the number of joints affected. The temperature varies between 102 and 107°, when above 107° the attack is very severe. The appetite is impaired and in most cases there is complete anorexia, the patient refusing to take any nourishment at all. A most remarkable feature that accompanies attacks of rheumatism, is the profuse sweating which emits a sour odor, and does not tend to abate the fever in the slightest degree, nor is it considered

a sign of improvement as it is in other fevers; the suffering of the patient is not mitigated at all by the profuse perspiration, his discomfort is rather increased. The urine is scanty, with a specific gravity greater than in health, owing to the increase of urea and ammonia, which are deposited as a sediment when the urine remains sufficiently long in any vessel. Sleeplessness on account of pain, occasions great distress, and tends to exhaust the strength of the patient as much as any thing else. The heart-affection occurring during an attack of acute rheumatism, are sometimes spoken of as complication

but they are now considered, I believe, as one of the local manifestations of the disease, dependent upon the same causes to which the affection of the joints may be referred. Although we consider the inflammation of all sero fibrous tissues in acute rheumatism essentially of the same nature, and produced by the same causes, yet there is a difference in the results of the inflammation affecting the articulations, and that affecting the structures of the heart. In rheumatic endocarditis and pericarditis, there is sometimes exudation of lymph, formation of false membrane, and suppuration; in rheumatic arthritis it is of very rare occurrence that

such results follow. Acute rheumatism is a self limited disease, the duration of which, varies greatly in different cases; the usual duration is from four to six weeks. sometimes the disease runs its course in ten days. Occasionally there occurs an intermission in the course of an attack - the fever suddenly subsides, and the patient seems to be in a state of convalescence, when the local manifestation will fly - may again appear with as great intensity as ever. The pain in the joints or movement, and stiffness may continue long after the fever has disappeared. That the pathology of the disease involves a morbid

principles in the blood, seems to be now a settled fact as to the nature of the morbid material, the pathologists are not agreed; some suppose it to be uric acid, but the majority of pathology at now regard lactic acid as the materies morbi. The action of cold upon the body is without doubt the chief exciting cause of rheumatism which, by suppressing the functions of the skin, creates in the system a condition favorable to the production of lactic acid. Some persons are more liable to attacks of the disease than others, owing to a rheumatic diathesis, which seems to be inherited. The reason why exposure

to cold is not always followed by rheumatism, and that the same exposure in different persons, likewise does not produce rheumatism, in each is owing to the condition of the system of the persons at the time of exposure; a person's system is more liable to be affected by any disease at one time, than at another. That cold and the vicissitudes of weather are the chief exciting causes, seems to be fully demonstrated from the fact that the disease prevails most in cold, moist, and changeable climates, and is very seldom met with in warm and dry climates. It is said sheep to

never have rheumatism, owing to the protection of wool, which being a bad conductor of heat, cold cannot exercise that influence upon them, that it otherwise would do, were it not for the protection that wool affords.

Age has much to do with the causation. It very rarely attacks children under the age of five years. Persons between the ages of fifteen and forty are more liable to attacks than those who are older; when it occurs in very young persons the heart is frequently involved. Rheumatism may be mistaken for either gout or simple arthritis; but there are certain points of difference between the diseases,

which assist us in forming a correct diagnosis. Rheumatism may be distinguished from gout, sometimes by the changes that take place around the joints themselves. In gout there is sometimes a morbid deposit of urate of soda, which is not produced in rheumatism. Gout attacks the small joints, most frequently the metatarso phalangeal articulation of the great toe, while rheumatism is an affection of the large joints. In gout the local phenomena are more fixed, there is not that liability to shift from joint to joint, as in rheumatism. The pain is more acute, the fever is not so great

as in rheumatism, and depends more upon the local manifestation, in rheumatism the fever is essential; the deposit of urate of soda in the helix of the ear that occurs in gout, is one of the distinguishing features between that disease and rheumatism. Gout is a disease that affects grown persons, and very rarely attacks persons under puberty; rheumatism is a disease that affects persons of all ages. The history of the case is very important in assisting us in forming a correct diagnosis. The habits of the person are to be taken into consideration. Gout occurs in persons who have been addicted to

the use of fermented liquors, and who have been luxurious livers, & of bad eating habits. Rheumatism is not brought on by any of the above exciting causes to which we refer gout. Rheumatism is distinguished from simple arthritis, which is purely a local affection, by the fugacious of the inflammation in rheumatic arthritis, whereas in articular rheumatism it is rare that one joint only is affected. The fever in arthritis is proportionate to the local inflammation, and always comes on after the inflammation has been established; while in rheumatism, the fever usually precedes and is not proportionate to the

local manifestation. Rheumatism is seldom a fatal disease, and is never considered dangerous except when complicated with some affection, or attacks some of the internal organs. Heart-lesions, such as endocarditis, and pericarditis, are attended with considerable danger not only during an attack of rheumatism, but many years after, affections of the heart-are liable to occur, and have their origin from some attack of acute rheumatism. Rheumatism is a self-limited disease; the duration of which does not seem to be much influenced by any course of treatment that may be used.

There is no specific; we can only hope to alleviate the pain of the patient and to guard against complications, by such treatment as our judgment thinks best. Many methods of treatment have been tried; among which may be mentioned, bleeding, mercurialization, colchicum, quinia, veratrum, opium, and more recently the alkaline treatment. If any treatment can lessen the duration of the disease, and diminish the liability to heart complications, the alkaline treatment seems to be indicated above all others. Lactic acid, the materies morbi, is neutralized by an alkali and

is eliminated from the system chiefly by the Kidneys; and when the existing cause of the disease has been destroyed, the disease itself must abate. The alkali most frequently used is the bicarbonate of Potassa in very large doses, so that the patient may be saturated with it as soon as possible. To render it more agreeable to the taste of the patient it may be given in lemon juice, which is itself a remedy recommended for rheumatism. The alkaline treatment does not preclude other treatment. The patient should be wrapped in woolen blankets, and kept in a room of uniform temperature. Complications

are greatly diminished by such precautions. If the bowels are constipated some mild laxative is required — purging should be avoided. To relieve pain Opium in some form should be used. Dovers Powder [illegible] the best. When the temperature is high, and pulse very frequent, some antiphlogistic sedative may be employed, such as aconite, or digitalis. Sponging the body with cold water, or the cold water bath itself is recommended by some to reduce temperature. In pericarditis and endocarditis when the pulse is very frequent, the tincture of aconite root or tincture of digitalis is required to

reduce the number of pulsations.
Bleeding is never resorted to except
in some cases, when the fever is high
with full bounding pulse occurring
in a plethoric subject — then in the
incipiency of the disease bleeding
may be good. As a local applica-
tion to the affected joints anodyne
liniments are recommended. Chloroform
liniment is good, Spirits of turpentine
is considered very useful as an ap-
plication to the affected joints.
Some advise that the joints should be
wrapped in flannel, and the precor-
dia covered by the same material if
pericarditis or endocarditis occur.

Blisters are sometimes applied to the affected joints. The elimination of the materies morbi is thought by some, to be effected through the serum discharged by the use of blisters.

Tonics are indicated during the declining period of rheumatism. When the blood is very much impoverished and the appetite poor the preparations of quinia and iron may be employed with benefit. Colchicum is not used as much as formerly in acute rheumatism, and mercury hardly ever resorted to.

J. A. D.

Thesis

Inaugural Dissertation

on

Scarlatina

Submitted to the Examination

of the

Provost, Regents and Faculty of Physic

of the

University of Maryland

for the

Degree of Doctor of Medicine

by

G. J. Cummen

Baltimore, Md

Scarlet fever

From the words Scarlatte a deep red, and fever. It is an exanthematous fever characterized by a scarlet efflorescence of the skin and mucous membranes.

The origin is involved in great obscurity and seems to have been unknown to the ancients, or if known its nature was so little understood as to render its description in such obscureness that we are unable to recognize the disease, now looked upon as one of the most fatal with which we meet. Jasper Wartanus an Italian Physician who gave a description of the disease as it prevailed in Rome about the middle of the fourteenth

century if not the first is among the earliest writers on the subject. Sydenham described it as it occurred epidemically in London in 1689. Others wrote upon the subject abt. the same time applying different epithets according as it seemed to resemble other diseases; then somewhat better understood.

Thus Morton gives a description of it under the name; Morbilli Confluentes. By Hoffman it was termed Rubeola Rossalia. by Heberden febris rubra evincing; from the various names that their ideas in regard to the malady were very vague. And even untill within a century scarlatina and measles

were considered the same or very closely allied; Some authors holding that scarlatina bore the same relation to measles as does the confluent to the distinct form of small pox. And thus the profession groped in the dark until light dawned upon them in shape of essay by Dr. Withering. Published in the year 1778; a second edition of which appeared in 1793. who described it as a seperate and distinct disease. Since that time various treatises have been given to the profession all however recognizing the distinctive character of the disease; Yet being at a loss to explain and reconcile certain peculiarities which the poison is so liable

to produce. And even up to the present day authors have found it difficult to make perfectly satisfactory answers of it.

Incubation appears to be induced like all exotic fevers by exposure to the influence of a specific poison, but poison may be transmitted from one individual to another. This point seems to have been settled by the older authors and their views are still maintained by our later writers.

Flint in his Third edition in Practice of Medicine says: "The communicability of Scarlet fever is established by irrefragable proof, and exclusive of inoculation it is probable that its causation

always involves infection". To prove which he cites several examples.
Dr. Lewis Smith in his work on children also considers it contagious but admits the possibility of its occurring sporadically.
It seems to me possible and from what I can learn probable that it does though perhaps rarely occur sporadically. And while I would not deny its communicability; I must confess I do not believe it to be necessarily contagious; that is to say contagious in the same sense or perhaps better, the same high degree as is small pox or even measles.
Every physician: and not only those of

the profession but none who has given the least attention to the subject no doubt has seen many instances of families of children who have been exposed in a protracted and perfect manner escape entirely and in others perhaps one or even two have contracted the disease, while the remainder portion of the family have not been in the least disturbed.

I myself have observed this fact in numerous instances. In one in a family of nine children one of which had an attack of the most malignant character the others although have free access to the room and bed upon which the patient lay were not in

the least affected. In another four of five children under similar circumstances passed through the exposure unharmed. Many more might be cited equally as striking, but we think this sufficient to give our claim at least a degree of probability.

Our eminent and worthy Professor H. F. Howard whose observation has extended, holds views if not precisely like ours bear considerable similitude. In one of his valuable lectures upon the subject of Scarlatina he remarks that Scarlatina is much less uniformly contagious than either Measles or small-pox.

The communicability of Scarlatina by means

of fomites is pretty well established. But the popular idea of its being propagated by physicians is not born out by observation. The time of life at which it is most liable to occur as shown by statistics is in the third and fourth years, and the liability to it diminishes rapidly after the fifth, becoming very small after forty. Out of 2.402 cases admitted in London Fever Hospital during 30 yrs only four were above 40 and but one above 60. Children under 2 yrs of age and infants at the breast are not as was at one time supposed entirely insusceptible. Dr Richardson has given us a statement the result of observation in 1.31 cases. In which 15 were under 2 yrs. Flint

records two cases which came under the notice one a year and the other only 2 weeks old: the mother of last named having been attacked a few days after confinement.

According to mortality table of the Registrar General of Great Britain of 12,962 deaths from Scarlet Fever in children under 4 yrs. of age the number under one year was 1,289 and between one and two 2,874 making a total under 2 yrs. of 4,163.

Cases have been reported of it having been contracted in Utero.

Most adult persons are subject to the disease although not protected by an attack of it in childhood

Pasturient women however do not seem to possess this immunity as a comparative fair number are recorded as having suffered from an attack at that particular period.

It attacks the same individual but once as a rule. But this like small-pox and some few other diseases which are supposed to present but once in the same individual furnishes us exceptions, and 2 or even 3 attacks have been allotted to the same human frame. But fortunately for those who are thus liable a degree of consolation is furnished in the fact; that no death from the second attack has ever been recorded. The poison whatever it may

be, produces in certain individuals upon very exposure phenomena assimilating in modified form those presented by Anginosa occuring in Scarlatina.
In describing the disease I shall follow the majority of writers and consider three varieties considering those adopted by Bouchut viz.
Regular, Irregular and Malignant.
In the regular form the onset is generally sudden; sometimes however there are prodromes frequently very mild amounting to nothing more than a little uncomfortableness and languor.
The attack may be ushered in with a chill more or less marked followed by a high grade of fever; the temperature

of body reaching 102° or 107° with pulse ranging from 110 to 120. As a rule the temperature being higher and pulse more frequent than in any other disease.
Hot skin, flushed face, eyes brightened in some cases suffered, respiration moderately accelerated, nervous symptoms sometimes being present in the form of twitching, sudden starting, with stupor.
A valuable diagnostic symptom occurring in the 1st 12 or 24 hrs is vomiting. This unless it be persistent in which event it would be indicative of great irritability of stomach is not a severe symptom.
The bowels are generally regular or constipated. Diarrhoea if it exist is almost always mild and transient.

That which might be termed the efflorescence appearing in the fauces is observed before its appearance upon the skin.

These symptoms as to their intensity are greatly varied in different instances, some presenting so mild as to make the disease very difficult, others are so intense as to cause apprehension, while in another case all the intermediate grades present. The above symptoms continue for 6 to 8 hrs; when the eruption introduces the second stage. This is seen first about ears then neck, shoulders &c in minute dots or specks which coalesce forming reddish indistinct patches fading into the normal hue. These patches extend

unite and in a few hours the surface of the whole body is covered with a scarlet or vermillion red very much resembling the result produced by the application of a sinapism; pressure causes the rash to disappear but it quickly returns; a marked delay in its reappearance is indicative of a sluggish circulation and consequently the malignancy of the attack. The symptoms continue with unabated intensity not being modified by the appearance of the eruption as are the symptoms in some of its kindred diseases for a period of from 4 to 6 or even 7 days; when the fever begins to diminish the pungent heat becomes less and rash fainter and a general and gradual

decline in the disease, convalescence being established by the close of first or beginning of second week. During second week the rash disappears swelling of buccal and faucal membrane and the engorgement of mucous papilla subside the childs countenance brightens appetite returns and the child becomes itself again. Succeeding this, is the desquamative period in which exfoliation of the epidermis occurs over the whole body. a process which occupies ten or twelve days generally, it may however only require five or six days or upon the other hand several weeks may be necessary for its completion.
The irregular form which will next occupy our attention owes its irregularity

in the great majority of cases to either pre-existing or co-existing diseases or a dis-ordered state of the system. Thus ente-ritis may delay the eruption and entero-colitis frequently prevents its appearance entirely; the pre-existence of phthisis will effect the eruption to a greater or less degree.

Any acute or chronic disease which produces a decided afflux of blood toward an internal organ will exert an influence causing the eruption to be tardy in its appear-ance indistinct or wholly absent.

It may however occur irregularly in those who are good conditioned and free from any other disease. Thus S. Lewis Smith records a case of a young lady whose previous health having been excellent

contracted the disease from her brother
all the symptoms of scarlatina were present
save the eruption. At the expiration of
two weeks she was attacked with severe
nephritis with anasarca effusion into
the pleural cavities and pericardium which
resulted in death.

The second attack of Scarlatina is
very apt to be incomplete or mild.

The malignant form characterizes certain
epidemics while in others it is hardly known.

It usually commences with severe symptoms
and in some cases they are so intense as
to completely overwhelm the vital forces
death intervening in one or two days or
even in a few hours. In these cases the
nervous phenomena predominate

manifested by great restlessness, delerium coma and sometimes convulsions; with pulse numbering 140. 160 or 180. the patient succumbing to the virulence of the poison before the rash has made its appearance.
Fortunately for humanity there are cases which give an opportunity for the interposition of the skill of the physician and in these the nervous symptoms though predominating are far less intense, a low form of delerium being conspicuous.
The temperature as shown by the thermometer placed in axilla is from 103 to 107. Heat of surface is pungent its absence is indicative of approaching dissolution as is also great heat of head and body with cold extremities. When [illegible]

from the severe symptoms subsequent which is within the first 3 or 4 days we are called upon to combat that arising from retention, the success or non success depending very much upon the extent of derangement of the pharynx, stomatitis &c which renders deglutition difficult, interfering to a greater or less extent with nutrition. Pharyngitis, stomatitis & tonsilitis continues throughout the disease. Inflammation of lymphatic glands and cellular tissue around angles of jaw accompanied by more or less retention of mucous or mucopus which collects around the entrance of and in great prostration even entering the larynx giving rise to an additional source of retention

with our efforts to overcome exhaustion.

We have next to consider the complications which are liable to occur in any form of the disease, although they are most frequently met with in that which we have just described.

Among the most common complications are first those referable to the nervous system which are to a greater or less degree dangerous according as they appear early or late in the disease. Nervous convulsions occurring in the first stage before the eruption may allow of the hope of recovery, but occurring at a later period after the rash has been fully established must always portend dissolution. Convulsions may

to congestion of nerve centers, scarlatina, poison or uremia.

In a large proportion of cases albuminuria is present, it does not however necessarily indicate serious disease of kidneys. Renal epithelium, cylindrical waxy and epithelial or granular casts are far more significant as denoting serious renal affection than is albumen. Perhaps the most important feature relative to the urine, as indicative of serious trouble is the deficiency or absence of urea with a low specific gravity.

A certain number of cases present anginose symptoms of such intensity and character as to constitute a complication; the extension of the inflammation may result in separa-

-tion and discharge of ossicles through external meatus of ear. caries of bones, abscess of brain, oedema of glottis & Adenitis & cellulitis disappears by resolution. Suppuration and gangrene though rare is an occasional complication. A hemorrhagic tendency is sometimes met with as is also diphtheria and more rarely articular rheumatism, vaginitis, pyothorax, pericarditis, endocarditis, peritonitis, and pleuritis.

In addition to the complication attending scarlatina we have the sequelae enhancing the danger of a patient who has suffered from the disease. The most common of which is albuminuria with general dropsy, this although sometimes a complication is generally met with as a sequel, when as such

it makes its appearance in 10 or 12 days after date of desquamation; the intensity of attending symptoms depending upon the degree of inflammation and amount and seat of effusion. It begins with languor, more or less febrile excitement, accellerated pulse, hot and dry skin and anorexia. If the effusion is present a limited amount of puffiness around the eyes or upon extremities is all that is observed; if the affection is slight. In more severe and by far the majority of cases there is extensive anasarca which as a rule does not give rise to any marked symptoms. If effusion into the cavities takes place the symptoms which characterize the same condition

from other causes are manifested.
Otorrhoea is not an infrequent sequel,
occasionally internal otitis is met
with which is more serious as it is
more likely to impair the hearing per-
manently, besides the danger of
from extension of the inflammation
complicating petrous portion of temporal
bone inducing caries and extending further
involving lateral sinuses causing thick-
ening and bulging of their walls obstruc-
tion to the circulation; congestion in the
brain and sinuses, formation of thrombi
and finally coma and death.
In view of the fact that so many cases
die of scarlatina are suffering with
one or more complications the brain

of which are added to those of the
fever that it becomes almost impossible
to specify those which are due entirely
to the specific poison. According to Drs.
Hennock & Murchison their is a
condition of mucous membrane of stomach
analogous to that of the cutaneous surface
accumulation of granular and fatty
matter in the stomach tubes and folli-
cles of Lieberkuhn, fibrinous casts of
these tubes are found in contents of
stomach and intestines and desquama-
tion of epithelium. In malignant cases
says Smith the blood is dark, heart
clots soft and small. In other cases
the blood may be nearly normal and
heart clots of usual size and [illegible].

Their are no symptoms previous to the appearance of the eruption which would enable us to make a positive diagnosis; our suspicions should be aroused if a child having been exposed to the disease a few days previous is suddenly attacked with high fever, very rapid pulse and if vomiting with redness of fauces be added we would not incur a great deal of risk in pronouncing it scarlatina. The appearance of the rash with the development of the peculiar condition of mucous membrane in mouth and fauces would dispel all doubt. The abnormal form with indistinct eruption furnishes a condition which greatly impedes diagnosis and it

after having observed clinical history from day to day that we are enabled to reach a conclusion as to its nature. Their is perhaps no disease which presents greater difficulty to prognosis than does scarlatina or more properly scarlatina with its complications and sequels; for no matter how mild a given case may be in the onset we have no assurance that their will not supervene upon it some [illegible] complication which will either suddenly usher our patient into eternity or else establishing a slower and more agonizing condition gradually drag with inquisitorial torture and [illegible] certainty toward the jaws of death notwithstanding all efforts to relieve and rescue

untill death closing around [illegible]
it from its agony.
An unfavorable prognose can be made
where repeated convulsions occur before
eruption or still more unfavorable if
they occur after the eruption.
Great drowsiness with jactitation,
active delirium excessive, frequency of
pulse, very high temperature, dark colored
eruption all of which are dependent upon
intensity of the disease itself are of course
unfavorable. Severe throat affections,
great enlargement and suppuration of
glands of neck. Gangrene of throat and
mouth all militate against recovery.
Diphtheria appearing in any stage is
source of danger. [illegible]

giving rise to dropsy or uremia are conditions which very much enhance danger as does also a tendency to hemorrhage. Death is liable to take place from asthenia in consequence of the anemic condition produced by the poison after the patient has passed through the fever.

As the different forms vary greatly as to their symptoms and intensity so also must the applications of remedies vary. The mildest cases require little more than hygienic measures while those of a severer type demand the almost skill in their management.

As we have already occupied too much place in the consideration of our subject

it will perhaps be more prudent to give a cursory glance at the most important conditions and their management rather than enter into any detail. The nervous symptoms attending upon the disease are perhaps best controlled by warm bath. Pharyngitis by cold or warm external applications to throat with internal application of Chlo. Potash, Carbolic Acid or, Liq. Ferri. Sulph. The unpleasant symptom of itching may be allayed by inunction with bacon-lard or oil. Renal disease as it generally occurs in this affection indicated by employment of diaphoretics and cathartics; stimulating diuretics are contraindicated by reason of

the hyperaemic condition of the kidneys. Alcohol [illegible] be used at any period of the disease as there be prostration notwithstanding the nervous phenomena. The employment of iron with other sustaining measures are appropriate when their exists anemia with anasarca and albuminuria.

The sick room should be well ventilated and kept at a uniform temperature of 68 to [illegible]. The patient should not be exposed to vicissitudes under a month after subsidence of the disease.

The influence of Belladonna and Carbolic Acid as prophylactics is very doubtful.

[illegible]

[illegible] on [illegible]

[illegible]

[illegible]

Faculty [illegible]

of the

University of [illegible]

[illegible]

Session 1873-74.

An Inaugural Dissertation
on
The Arterial Circulation in the
Brain During Sleep.

Respectfully Submitted to the
Examination of the Provost,
Regents and Faculty of Physic
of the
University of Maryland,
for the
Degree of Doctor of Medicine,
Session 1873-74,
by
H. T. Harrison, of Virginia.

The Cerebral Circulation During Sleep.

One of the chief obstacles in the path of the student of Pathology, is the difficulty of establishing beyond a doubt the condition of the various organs of the body during health. For if we are not acquainted with the normal state, the natural healthy workings & phenomena of the human system, how can we detect an abnormal condition of things?

Unless we can sharply define the line of demarcation between the normal physiological phenomena & a perverted train of phenomena, how can we ever say where health is beginning & be undermined by disease? Thus is an imperfect system of Physiology ever clogging the feet a youthful Pathology, enthusiastic & ardent for the race. And thus will it ever be, more or less, in all human probability, from the nature of the case. But one may say, "Have we not efficient means

of finding out these matters?
Have we not the field stretching
out before our eyes for our obser-
vation? Can we not have recourse
to experiments? If the views which
Nature affords us do not suffice,
can we not rearrange the mate-
rials & bring out views to suit
ourselves? Are there not certain
lines along which the Physical
Forces act? Does not Nature strike
out certain general plans, according
to which she works out her vast
designs? And is there not such a
perfect adaptation of means to an

end and of part to part in each perfect whole, that, given the separate parts, we may construct the machine, or, at least, given the machine as a perfect whole, we may say with positive certainty what must be its mode of working?" All this would seem very plausible; like many a theory, which appears to make the whole subject so plain the exultant author is ready to cry, "Eureka!" and lay the matter aside, as forever settled. But there it is so hard sometimes to apply a theory to practice.

It makes such a difference, when we take the vague, general equation, in which as yet x may be equal to anything (so far as we know), and reduce it to its simplest form, in which the value of x must be sharply defined & it can only be equal to <u>one thing</u>.

In applying these remarks to the subject in hand, it would seem that, if there is any question in physiology that ought be settled beyond a doubt in this age, it is this one, whether there is less or more blood in the brain during

sleep than when one is awake.

In discussing this subject, let us consider what are the office of the blood in the animal economy, confining ourselves to this one aspect of the case, viz., the blood in its capacity of ministering to the wants of the various tissues, for the accomplishment of their nutrition, waste, repair &c., and to various organs, for the performance of their functions. The great office of the blood, then, in this view, is to convey to the different tissues the oxygen & the various other de-

ments which they require for their nutrition & also for the formation of the several products which it is their province to elaborate; secondly the blood is the "great scavenger"; as it is said, of the body, taking up & carrying off from the tissues all the effete products.

Now it is well known that when an organ is unusually active, then an unusually large amount of blood is flowing into it; and, indeed, this is a necessary condition, for it is upon this that its excessive activity depends. If during the usual moder-

ate action a certain amount of blood is sufficient to keep it up to that degree of activity, it would be a natural inference that in order to function more energetically it would require more blood.
So that, in the common acceptation, a state of hyperaemia and a state of exalted activity would seem to be convertible terms.
As examples of this, we know that when a gland, as the parotid in mastication, is in active function, a correspondingly large amount of blood is sent to it; or in di-

gestion, we know that when food is introduced into the stomach, there is an afflux of blood to the different viscera engaged in the process of digestion. And when we find this holds good throughout the system, as far as we can investigate, what reason is there for supposing the brain to be an exception?

It is generally believed that, in some inscrutable way, the brain is the seat of thought, of all mental activity. It is, then, a belief to which we are driven, that during waking moments, while the mind is active,

reflection, reason, judgement, every faculty on the alert, and all the senses in full play — that this is the time when the blood is actively & freely coursing through the brain; and that while we are asleep, every sense lulled & ~~sunk~~ unconsciousness, thought suspended and every faculty at rest, then a smaller supply of blood is sent into the brain, merely enough for its ordinary nutrition. And, indeed, it would seem that when some maintain an opposite opinion, it is from a misapprehension of the true

nature of sound, healthful sleep.
As, for instance, where Dr. Headland introduces the following quotation; "Sleep is the ligation of sense, but the liberty of reason. We are somewhat more than ourselves in our sleep, and the slumber of the body seems to be but the waking of the soul." This would seem to imply that dreaming is the natural function of the brain during sleep. Whereas, we hold that the safest, most reasonable & most tenable view is that, as a general rule, that sleep is

most healthful, restful & refreshing which is most free from dreams. I say as a general rule, for here, as elsewhere, there are some awkward exceptions. But does it not stand to reason that this should be so. If there is one law which is more deeply & indelibly impressed on our organization than another, it is this necessity of rest — periodical, absolute rest. It is a necessity of our whole, it is a necessity of every organ. Upon what grounds, then, are we to believe that the brain is exempt from

this law, this irresistible cry for rest which comes up from every part of our organism? Let us take a glance at the subject from another standpoint. It is a fact that has often been remarked upon, that after eating a full dinner one feels a sensation of chilliness, especially about the hands & feet. This is generally explained as follows; immediately upon the ingestion of food, the stomach & other viscera by which digestion is carried on, demand an extra supply of blood; through the agency of the ner-

vous system this demand is satisfied, but at the temporary expense of remoter parts, causing in them a sudden sensation of reduced ~~temp~~ temperature. But there is also another phenomenon that comes in just here, which is equally familiar; and that is an inclination, sometimes irresistible, to sleep. Now, if the former effect, the chilly sensation, is explained by a diminution of the amount of blood in the parts, does not that seem a natural explanation of this phenomenon also?
Is it fair to conclude that the

process of digestion which induces a derivation of blood from the extremities &c., induces a determination of blood to the brain? Cui bono? But just here there is an apparent difficulty; it is equally well known that a hearty supper often causes one's sleep to be "disturbed," as it is said, by unpleasant dreams. Passing by the fact that this can not be taken as a type of natural, healthful sleep, I would merely say that this phenomenon finds its explanation in the operations of that accommodating sympathetic

system, which explains so many things but can be itself explained by nothing. The stomach being in distress, the brain becomes involved in it.

But leaving this reasoning from analogy & upon probabilities, let us come to the subject of direct observation and experiment. In this field, as might be supposed, it is very difficult, if not impossible, to conduct experiments which shall afford complete & satisfactory evidence, or to apply anything like a crucial

test. However, a good deal may be accomplished by experimenting upon the lower animals, for so close is the resemblance in some instances between their organization & ours, that we may reason by analogy from their phenomena & ours with a high degree of probability.

Of such a character were the experiments conducted by Hammond & Drummond. These investigators prepared their subjects by trephining the skull & fixing in the aperture a watch crystal. By this ingenious means it was discovered that while

the animal was asleep, the circulation was very markedly less active in the brain than when awake.

There really seems to be no sufficient reason why this should not carry just as much weight with it, as if it had been observed in the case of human beings themselves.

This view of the circulation in the brain during sleep, however, would seem to be hard to reconcile with the theory held by many of the modus operandi of the class of drugs called soporifics; viz., that they produce

sleep by congesting the brain.

But Dr. Hanfield Jones, in-experimenting on a man who had been trephined, discovered that when a small (or moderate) dose of opium was administered, producing sleep like natural sleep, there was a deficiency of blood in the brain, which he explains by the influence of the opium on the vaso-motor nerves, causing the smaller arteries to contract.

And according to this author a larger dose of opium produced a heavy, unnatural sleep, which

he attributes to the overwhelming influence of the drug on the nervous centers, paralyzing the vasomotor nerves and leading to a dilatation of these arteries, a congestion of the brain.

To sum up our belief, then, it is that upon the accession of sleep, as one of its essential conditions, the flow of arterial blood into the brain is materially lessened, while at the same time there is an afflux of cephalo-rachidian, or cerebro-spinal, fluid; but which is the (immediate) cause & which

the effect, it would perhaps be impossible to say. For it is evident that the presence of an unusually large amount of this fluid compressing the arteries would diminish the quantity of arterial blood in the brain; while, on the other hand a small amount of arterial blood would be followed an influx of this fluid. Furthermore, it seems contrary to all reason to suppose that Nature induces her sleep by congesting the brain, overwhelming the nervous centers, and, as it were, drowning out, for time being, the mental faculties.

Finis.

Gentlemen.

It is a difficult task for one not very well versed in the English language to endeavor to write upon a subject that the authors disagree so much upon; nevertheless, I will try to express my ideas to the best of my ability, trusting and hoping in the goodness of the members of the faculty of the Maryland University, to make due allowance for whatever fault or mistakes in its composition may occur.

My proposition is this — What is the Chromhydrosis?

Although a truth may dazzle with its

rays all the enlightened world, although
they might try to bring forth and pro-
claim a principle, in order that this might
not be but an opinion, a conjecture, a belief
or a prejudice, it is necessary for anyone
to come ready with the means to discuss
or analyze any of its details and relations,
refering and connecting them with each
other, and all to the general principle
or truth which serves as the base or star-
ting point; and all this in such a way
done that it might be demonstable and
convincible; without this union and con-
nection it will happen that this truth
is rather a conjecture, a particular belief

unprovided with that relation that must exist between the mind and the object.

This labor has been realized by the eminent Le Roy de Mericourt who with an indomable constancy and guided by a profound conviction of the truth did not leave the field of discussion until he demonstrated to his adversaries the existence of the Chromhydrosis. Le Roy de Mericourt has given the name of Chromhydrosis to a disease characterized by a secretion of a black or bluish black matter that is deposited chiefly on the eye-lids and face. The same affection has been called Cyanopathy entanea, stearrhoea nigricans &c.

In 1709 an English physician James Jonge published for the first time a case of this disease, which case had reference to a child of six years of age native of Plymouth. In different parts of the face she had black spots, which spots disappeared by friction, and soiled the linen. In 1765 Leat published an other case. A young lady had a black discoloration in some parts of her body at the end of the third month of pregnancy. In 1831 Billard de Angers published an other similar case.

In 1845 Feevan described a very interesting case of the same kind. In 1849 Bouguet brought before the academy

of Paris a memoir, in which he inserted a case of Chromhydrosis, and the discoloration was internaly. In 1857 Le Roy de Mericourt observed two cases of black discoloration of the skin. Hardy, in 1859 related a case of Chromhydrosis to the Medical Society. Bousquet had reference to a case of Chromhydrosis with very black color. Le Roy de Mericourt published a treatise upon this subject, in which he quotes twenty-eight cases as authentic.

A minute examination of all these cases of Chromhydrosis, prove the existence of this disease, that ought to oc-

occupy a place among the hyperæmias.

Very tranquil the medical world moved on with the most profound conviction of the existence of the Chromhydrosis; when a genius presents himself declaring that such a disease could not occupy a place in the nozological table, because it was simulated. That genius ought not to have ejected such a proposition, for the simple fact of having observed a case of simulated Chromhydrosis in a lady that painted her eye-lids with Indigo.

We believe that it was a hasty action on the part of M. Duchenne (de Parilly) to declare the non-existence of the Chrom-

hydrosis by observing but one case of a simulated cutaneous cyanopathy. Before we wish to destroy a fact proved by the experience of other men, it is necesary to study with care such a fact, to study it with great tediousness, to examine it without prejudice the facts that come to prove such a belief; and after this careful study to expose the doubt, in order that the other ones following the same inspection might give a final answer. At the present day, there is not a doubt of the existence of the disease. Le Roy de Mericourt to whom science is great deal indebted, for his spirit of investigation, has

demonstrated without a doubt the existence of the disease, with which we are dealing, and now there is not an intelligence that opposes such a belief, which he has proved so well. In order to sustain the opinion of Mericourt, we must quote something from a note of Ch. Robin, that has reference to the study of the substance forming the discoloration of the affection of which we are treating. Robin says, that the coloring matter secreted by the skin, is of a special nature, and very different from all the substances used in the cosmetics.

Very little is known about the causes of this affection. If we look carefully to

the different observations made till the present time, we will find that it is more frequent in the female than in the male, and that there are some localities that are predisposed to it. Le Roy de Mericourt believes that menstruation has a great deal to do with the etiology of this disease; but in order to destroy such an opinion it is only necessary to know that the affection has been met in women that have been regular in their menses; besides the existence of the chromhydrosis in the male comes to destroy in a great measure that could be given to the opinion of Mericourt.

The chromhydrosis is a manifestation by

black or bluish-dark spots, more or less extended, that appear upon the skin.

It is more frequent met with in the age of fifty, the cheeks, the forehead and the nose. It is has been met also in the external regions of [illegible] [illegible] frequency as in [illegible] [illegible] [illegible] stomach, hand &c. — The [illegible] important character that discriminates this black or bluish-dark spot from [illegible] [illegible] [illegible] [illegible] pigmentary affection [illegible] [illegible] coloring matter can be separated [illegible] [illegible] case, with the bistury, [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].

there is not a [illegible] reaction [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] it has [illegible] [illegible]
haemoptysis or cephalalgia [illegible] [illegible]
observed, is only by coincidence. [illegible]
[illegible] [illegible] [illegible] [illegible]
cold in the feet as well as [illegible]
brevetion; but upon the last subject we
have said enough in the preceding [illegible].

The diagnosis of the disease is very [illegible].
[illegible] [illegible] [illegible] [illegible]
of the substance that constitutes [illegible]
shot the separation from the [illegible]
ving it while, the chemico-physical [illegible]
[illegible] will [illegible] the diagnosis.

The disease appears sometimes suddenly in the [illegible] [illegible] [illegible] [illegible] [illegible] as Dr. [illegible] [illegible] ved, with the symptoms of chloro-anaemia. In general it begins in the eye lids and after it extends more or less to the [illegible] [illegible]. [illegible] [illegible] from two to [illegible] months, and sometimes [illegible].

The prognosis is favorable in relation to the general [illegible], [illegible] [illegible] it does not [illegible] [illegible] [illegible] [illegible]. If we bear in mind the duration of the complaint, the difficulty we find in therapeutics, and the more

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

as of any other organic lesion. For [illegible]
reasons we must classify it among [illegible]
[illegible]rrinias, and to localize it in the
sudorific apparatus, although in honor
of the truth, we must say, that this opi-

that in the sabaceous acnae, the secreto-
ry [illegible] is enlarged [illegible]
[illegible]
[illegible]
hydrosis, therefore [illegible]
[illegible]
of the sabaceous acnae.

Baltimore.

[illegible]

[illegible]

A Thesis

on

"Suppurative Hepatitis"

respectfully submitted to the

Board of Regents and Faculty of Physic

of the

University of Maryland,

for the

Degree of Doctor of Medicine

by

L. Mervin Maus

of

Rockville Md.

A. D.

1874.

The history of Suppurative Hepatitis or Abscess of the Liver is one not well understood, and still worse, for which little can be done. The Anatomical Characters are varied, and in accordance with its simplicity or violence. We may find the inflammation limited to a part or several portions of the organ; generally we find not more than three or four abscesses at a time, and frequently only one. The situation of the Abscess varies; is most generally found in posterior part of right lobe. The size of abscess or abscesses may be very different; when there are several, we find them generally from the size of an almond to that of an orange; one case is recorded in which the cavity

was large enough to contain eighteen pints. Since there is at one time some slight peritonitis set up, we may expect to find the organ attached to portions of the internal structure. The diaphragm, peritoneum of walls, and different parts of intestines, at times, may be found agglutinated to it; the part selected is frequently the seat of perforation. The walls of the abscess are first liver structure, but often awhile become thickened and form a cyst. The matter contained within seems to differ, on an examination, very little from ordinary pus; now and then we may find broken down hepatic tissue; also, bile is found in the pus sometimes. Dr. Caskey examined the pus

ulent matter in one case and found 80 per cent of albumen; upon a microscopical examination there were only blood and pus corpuscles present, and in the same case no bile was detected by Pettenkofer's test; still it has been noticed that the pus may be kept without undergoing any putrefactive changes for a very considerable time. In regard to the absorption of this material, we find much controversy, and still is an unsettled point. It is possible for it to remain in the cyst for an indefinate period, or it may finally ~~finally~~ produce by irritation a vent through which it may pass; this opening being generally in the direction in which there

is the least pressure. Since there the inner walls of the abdomen offer little obstruction, we find often the pus making its way up between them as high as the axilla or as low down as the inner side of the thigh assimilating very closely a lumbar abscess. The next frequent direction is the diaphragm, in this case the pus is generally expectorated through the bronchial tubes; the next directions in accordance with frequency are, the colon, stomach, or duodenum, pericardium, in the pelvis of right kidney, hepatic vein, or inferior Venae cavae and in the gall bladder or its duct.

The clinical history of this disease is very obscure, and from its beginning even until it has advanced to suppuration we may be ignorant of its nature, so insidious is its progress. From the general appearance of the patient phthisis may be suspected; emaciation, the hollow eyes, irritable stomach in some cases, debility and all the signs of a wasting disease attending it. The most prominent symptom is pain over the right hypochondriac, especially if the abscess be near the surface. Pain has been noticed in a large proportion of cases in the right shoulder; this last symptom is seen in only a few-

ticular kind of cases. Rigidity of the recti muscles has been pointed out by Mr. Twining, who thinks it is possibly due to the involuntary efforts of nature to shield the diseased and sensative parts. There is rigidity, also, in some cases, of the abdominal parietes, which may be due to the same cause, or by some, caused by the pressure of the fluid within. Febrile movement is rarely marked until an advanced period, and then is only slight in the majority of cases. We frequently notice throughout its entire course marked chills which simulate very closely intermittents, and indeed, in

some cases 'tis hard to discriminate between the two. The appetite and digestion are frequently affected, though there have been some cases in which no marked disturbance of this kind existed at all. The symptoms sometimes are completely latent, so much so, that a few cases have been found in autopsies in a tropical clime, which was not known before death of the patient, and was by no means its cause. If the disease is not checked it continues, destroying the unhappy patient by asthenia and generally accompanied with hectic fever, colliquative diarrhoea and exhaustion.

The cause or causes of Abscess of the liver have been given variously. Murchison calls it tropical Abscess, from its frequency in that climate, yet in many cases occur in temperate zones and very few in frigid zones. Dr. Budd thinks dysentery has very much to do with the cause of this disease, from its frequency with in temperate regions; this reason is considered doubtful by many. Suppuration again may be caused by phlebitis, or septic matter carried in the liver by the portal vein. Ulceration of gall bladder and duct, irritation of gall-stone, are mentioned causes, also the migration of lumbricoids in the hepatic ducts; contusions and bruises are named.

In the majority of cases the cause is unknown, and can be explained from no other ground than those of a spontaneous nature. I have seen three cases in one family in which some preceding members of the same had died from this disease; Could not hereditary transmission have sometimes been a cause?

The Diagnosis of this disease involves no little difficulty and as above stated the disease may run its course unknown. Some authors are doubtful whether it can be diagnosed or not until suppuration has made its way the outlet. From its clinical history we may suspect it, should the case in hand agree in symptoms. Much care is necessary to differentiate from

carcinoma, which is hard to the touch unless it be of the medullary kind; hydatid cyst, which is very slow in development and is painless; sub-cutaneous phlegmonous inflammation, which is preceded by pain, hardness and redness of the integument before fluctuation is felt; a distended gall bladder, which is known by its position, its pear shape, and its being movable since it is not generally adherent. In a case which occurred in the Baltimore Infirmary the disease was taken for pleurisy so closely were the symptoms and physical signs alike; the latter being caused by pressure of fluid giving rise to perfect flatness and by the conse-

pression to bronchial breathing. In this case the diaphragm was perforated and the purulent matter expectorated through the bronchial tubes. Enlargement of the liver is frequent in abscess of the liver and generally extends in a particular direction. The expectoration of pus through the bronchial tubes, in which there are bile and broken down liver structure is strongly diagnostic; the vomiting of pus and blood or the passage of them through the rectum are both strong reasons for suspecting this disease, and its having perforated the stomach, colon, or duodenum. When discharged in the pelvis of the kidney, it gives

rise to pyuria; this is not an infallible sign, as it may be due to other causes. The prognosis depends upon the several ways in which the disease progresses; the first is, whether the abscess goes on to perforation or not; secondly, the direction the pus takes. In the first case the pus may not prove excitant whereby ulceration may not take place at all. When the pus is discharged into the vena cava peritoneum, pericardium or pleural cavity it generally proves fatal very speedily. The most favorable directions are through the integument or abdominal walls, bronchial tubes, and alimentary canal. If complicated with

dysentery the chances are not so good. Recovery is not so good when there are several abscesses. The duration of the fatal cases is from three to four months; those of a favorable character from five to six months.

Treatment.

From the nature of the disease it is evident that therapeutics have very little power in arresting suppuration even were we aware of its existence. Quinine is said by some to abort the entrance of white corpuscles in any circumscribed place, which is thought to produce suppuration. We must endeavor in every way to build up the health and thus to overcome

the tendency of the disease. In those cases in which the pus is well made out, ~~Budd~~ Some advises an incision to be made and the matter let out; then the opening is filled with lint and allowed to granulate. Budd and others advise it to open spontaneously, fearing that air may enter and cause trouble; this is an unnecessary fear, since air may enter when there is spontaneous exit. Some advise cutting down to peritoneum stuffing with lint; after peritoneal adhesions have taken place, then open, provided it has not done so spontaneously. Keep the patient in best hygienic attentions and sustain the system with tonics. Fresh air and good clothing

in this as in other diseases must be rigidly carried out. When we can do nothing to obviate the fatal issue, or restore to health again, we can by the use of anodynes, and by many attentions to the general comfort of the patient, make the few remaining weeks of his life one of comparable comfort.

A Thesis

on

"Pneumonia"

respectfully submitted to the

Provost, Regents and Faculty of Physic

of the

University of Maryland

for the

Degree of Doctor of Medicine

by

Wm. J. McLowell.

of

Baltimore Md.

1874.

modified still continues. Expectoration is accomplished with more ease. The sputum loses its rusty color and more closely resembles that of bronchitis. The pulse is small and weak, and dyspnoea more marked.

All of the symptoms during the stage of resolution denote improvement. The fever diminishes and ceases. The cough becomes less frequent and the respiration and pulse return to their normal frequency, the appetite returns and the lungs again resume their normal functions.

Should the disease pursue an unfavorable course the stage of suppuration sets in. This happens at a very variable

period. Usually, between the first and second week. Sometimes as early as the fourth day and sometimes not until the end of the third week. There are no certain marks of the commencement of this stage. But generally speaking, the dyspnoea is very much increased. The countenance becomes pale and haggard. The pulse weak and rapid. The expectoration becomes purulent or ceases altogether. The skin is bathed in cold sweat and death occurs from asthenia.

The duration of an attack of Pneumonitis differs widely ranging from six to thirty days, the average being about twelve days.

Causes.— Pneumonitis is frequently due to vicissitudes of temperature, to exposure to cold, as an exciting cause. It is more frequent in winter than any other season. In most cases of Pneumonia, the attack cannot be referred to any assignable cause as it occurs spontaneously

Physical Signs— The physical signs are of extreme value in Pneumonia as an aid to diagnosis. During the first stage, a dull percussion, the resonance will be found slightly lessened, and if the finger be used for a Plessimeter diminished Elasticity will be observed. But auscultation is of greater value Upon placing the ear over the affected part, instead of the normal

vesicular murmur, and to hear the fine crepitant rale. This sound was formerly considered pathognomonic of Pneumonitis. The inspiration over the affected part is weak while over the healthy part the respiratory murmur is loud and puerile. In the second stage, or stage of consolidation, the vesicular murmur is suppressed and bronchial respiration becomes more or less marked. Vocal fremitus is a prominent sign. The vibrations being readily transmitted through the solidified lung structure. During the second stage, upon percussion over the seat of disease, decided dullness or even flatness may be elicited.

During the third stage the signs are very much the same as in the second. Only when the disease ends in

resolution there is a return of the crepitant rale. Often for a considerable period after convalescence is established, moist rales are heard in the chest and sometimes dullness upon percussion persists until health is restored.

Diagnosis. The diseases with Pneumonia is most likely to be confounded are: Bronchitis, Phthisis and Pulmonary Edema. Capillary Bronchitis is the disease which bears the closest resemblance to Pneumonia, but in the former affection the sensations are rather oppressive than acute pain and is situated in the vicinity of the sternum. The Expectoration of Bronchitis differs from that of Pneumonia by the absence of the rusty sputum, and finally in Bronchitis

the crepitant rale is absent

Pneumonia is distinguished from Pleurisy, first by absence in Pleurisy of the crepitant rale and the rusty sputum. the matter expectorated in the latter being mucous. And finally in Pleurisy when effusion takes place, vocal fremitus is lost. From Pulmonary Edema, Pneumonitis is distinguished by the febrile movement, rusty sputum and local pain being absent in the former it has been stated that the crepitation in Pulmonary Edema is not so fine as in Pneumonitis

Prognosis. The prognosis, as a general rule is favorable when primary and uncomplicated but the gravity is increased in proportion to the extent of the inflammation, and to the gravity of the complications if any exist. Under two years of age

the mortality is greater than from two to twenty. After twenty years of age the mortality is greatest. Double Pneumonia is generally six times as fatal as single Pneumonia. When the disease involves a whole lung is involved it is more fatal than a double Pneumonia. It is more fatal in males than females. In any case of Pneumonia, a very hurried respiration, Orthopnoea, brown expectoration and an extremely weak, irregular and feeble pulse, are indicative of an early and fatal termination.

TREATMENT— In the first stage of Pneumonia certain means have been resorted to in order to abort the disease. Blood letting at one time was constantly resorted to for this purpose as were also cathartics and other remedies of the so called anti-phlogistic class but without success, so that the

mode of treatment is little resorted to at the present time. The object of treatment in the first stage is to support the system and to fortify it in condition to bear the disease, and to diminish the local symptoms. Blood letting may sometimes admissable as a palliative if the patient be robust and plethoric with a full, hard, pulse together with dyspnoea. The relief obtained from this measure under such circumstances is very marked. Under other circumstances blood letting is contra-indicated, even in conditions where the measure might seem necessary, if relief can be given in any other way it is better to do so and exclude blood letting. Saline purges, or tartar emetic, as a nauseant sedative may be used. Veratrum viride has been recommended. Aconite is a very useful agent and is to be preferred whenever the depressing effects of

the above named sedatives are to be avoided. Opium in this stage is very useful in quieting pain and producing sleep. The treatment during the second stage must be directed to keeping up the strength of the patient, and to palliate the symptoms. Various measures have been reported to to promote absorption of the exudation, but with little or no success. The agents employed were chiefly the preparations of Antimony and Mercury. Iodide of Potassium is now being used for the same purpose with asserted success. Opium in this stage is now indicated. It relieves pain and by so doing diminishes constitutional symptoms, lessens the frequency of the pulse and produces sleep. It has been objected that Opium by lessening secretion, prevents expectoration.

Even in this case we should not be deterred from its use, because the exuded matter is removed principally by aspiration and not by expectoration. Sedatives may still be had recourse to in this stage if there be high febrile action. In some cases of an adynamic type stimulants may be necessary from the beginning. Individuals who have been addicted to strong drink should also be allowed a certain amount of alcoholic stimulants during their illness. Of all supporting measures Alimentation should be first attended to. It is absolutely necessary that the patient should be well nourished. Fruits, animal broths and farinaceous food should be continued. Thus giving a variety of alimentary

Pneumonia or Pneumonia, is an inflammation of the parenchyma of the lungs. Of a many forms of the disease, the varieties being founded upon the extent of the inflammatory action or upon the different anatomical elements of the pulmonary tissue which may be involved. Sometimes the character of the disease may be altered or modified by the existence of some other morbific action going on concurrently with the pneumonitis giving the disease certain definite characteristics and so constituting separate forms. The most common form of the disease is when the inflammation involves a whole lobe,

or even a whole lung. This variety is known as Lobar Pneumonia. When the disease exists as a complication of Phthisis, only a limited portion of the lung may be involved, constituting the variety known as Circumscribed Pneumonia. The inflammation is generally acute but may sometimes occur in a chronic form. The variety to be first considered, as being of most frequent occurrence is—

Acute Lobar Pneumonia—

Anatomical Characters.— Acute Lobar Pneumonia has three distinct stages viz. First— That of congestion or Engorgement Second— That of red hepatization and

... - Stat of gray hepatization!

In the first stage, the injured portion is slightly increased in volume, is of a dull red color and when cut into ... a bloody and somewhat frothy serum exit is more compact than healthy lung, but is of less specific gravity than water. And as the cells still contain air there is some degree of crepitation under pressure. The condition of the lung in this stage is not unlike a post mortem condition caused by hypostatic congestion in the dependent portions of the lungs. But this condition is always found in that portion of the lung in which the blood

would accumulate by gravitation. It is, usually bilateral and is of a dark color than the lung tissue affected by inflammation. But this stage is of short duration, the—

Second stage, or the stage of red hepatization soon follows. A coagulating material is exuded into and fills the air cells. This material is composed of small round cells, not unlike pus cells. These are mixed with red corpuscles, epithelial cells and amorphous matter. In this stage the affected part is of a reddish brown color. The specific gravity is greatly increased it being greater than that of water. There is no crepitation under

pressure and the lung tissue has become so friable that the knife may be passed through it with very little resistance. When cut into the lung presents very much the appearance of liver, and on this account it is said to be hepatized. When torn, the surface presents a distinctly granular appearance, each granule being the contents of an air-cell. In the course of a few days, the blood cells mixed with the inflammatory product, dissolve; the coloring matter is absorbed; and what was before red, now becomes grayish, and the third stage begin.

In the disease takes a favorable course, the exuded matter

is removed by absorption. On the contrary it pursues an unfavorable course, the affected tissue is infiltrated with a sanguinous, ichorous fluid, sometimes tinged with blood. It is exceedingly soft so that a moderate degree of force may produce cavities in its substance, which filling with pus produce a condition which may be readily mistaken for abscess.

The condition above referred to, viz. that of abscess is very rarely met with in this disease. When abscesses do occur, they are mere excavations in the hepatized tissue, and surrounded on all sides by diseased pulmonary tissue.

Lobar Pneumonia often causes

a circumscribed Pleuritis over the seat of the Pneumonitis which sometimes extends about two inches beyond the seat of the pulmonary inflammation.

Bronchitis may also complicate Pneumonia. but this disease may pass through its whole course without furnishing any evidence of this complication

Gangrene may sometimes occur but this complication is very rare.

Clinical History— The attack may be very abrupt or it is preceded for a short time by catarrhal symptoms. In the great majority of cases the attack announces itself by a chill, frequently accompanied by rigors. Although sometimes

may exist as a subjective symptom, yet a thermometer in the axilla will indicate an actual rise of temperature immediately following the chill, pain more or less severe occurs, and is probably due to a circumscribed pleuritis over the seat of the pneumonia. Sometimes an attack is attended with little or no pain. Well marked febrile symptoms now occur together with cephalalgia, Anorexia, thirst Elevation of temperature &c. The pulse is quickened, ranging from 80 to 120. The temperature attaining the height of 104° to 105° Fahr. Should the temperature become suddenly Elevated, it is generally indicative of the invasion of another

lobe, or of some intercurrent affection. The respiration is very much hurried, and its ratio to the pulse very much altered, being changed from 1 to 4, its normal ratio, to sometimes 1 to 1⅔ for 1 to 1 3/7. This variation is of great diagnostic value, it being considered by some as pathognomonic of Pneumonitis.

Cough, is a prominent symptom, beginning early in the attack. It is of a dry hacking character attended with scanty expectoration. In a certain proportion of cases there is a viscid semi-transparent expectoration which soon becomes stained with blood. Forming the characteristic "rusty sputum" of the disease. It is very tenacious and

adhesions exist, to the vessel containing it. A circumscribed redness on one or both cheeks is sometimes observed, which seems quite distinctive of the disease.

If the urine be examined at this time it will be found to have diminished in quantity. The amount of urea eliminated exceeds that in health. But the most notable change in its composition is the diminution in amount of the Chlorides as shown by testing the urine with a solution of nitrate of silver.

During the second stage of the disease, the symptoms are changed or modified. If pain has existed, it diminishes or ceases. The cough though

substances. In the third stage of the disease the same treatment as regards supportive measures should be employed.

When the disease is complicated by malaria, Quinine should be exhibited in full doses. By the promptness of this agent, not only is the malarious Element subdued, but the Pneumonia goes on to speedy resolution.

If the disease pass into the suppurative stage, although the prognosis is very grave, yet by persevering with the supportive treatment, the life of the patient may be saved.

Fini.

A Thesis
on
Remittent Fever

Respectfully Submitted to
the Faculty of Physic of the
University of Maryland
School of Medicine

By

John. C. Boyce

In application for the
Degree of
Doctor of Medicine

Anno Domini.

1874

It being obligatory upon the candidate for graduation at The Maryland University School of Medicine to write a Thesis on some subject connected with the study of Medicine.

I have the honor to submit the enclosed Thesis on Remittent Fever in conformity with that law of the institution.

With a full conciousness of my inability to originate anything new connected with a science which has been thoroughly canvassed since history has been written.

Febris Remittens, Remittent Fever, Bilious, or Malarial Fever. This disease is one of the pests of extreme southern or tropical climates, British East India, the Guinea Coast of Africa the Isthmus of Panama, the South American States above the 45th parallel south latitude, and the extreme southern and western states of the U.S. of North America.

We will throw out the more northern for although it is found it does not prevail to the extent that is seen farther south or west.

It prevails in low marshy or swampy regions, and is often called on that account swamp fever.

Anatomical Characters, The lesions are found in the liver and spleen. The first being of a bronze color, due to the deposit of pigmentary matter or hemetoidin in the liver cells. The spleen is enlarged constituting what is called ague cake, and is dark colored or black. Brunners glands, Leiberkhuns follicles, and Pyres patches are enlarged and injected.

Clinical History. The disease may be said to have two divisions, one of sthenic the other in those

of asthenic constitutions, when there would be a depraved condition of the blood, between these most varieties may be embraced.

Symptoms. The premonitory stage is usually short sometimes absent the disease often announcing itself abruptly. For a day or two before the commencement of fever there is an uneasiness, langnor, repugnance to exercise both physical and mental, poor apetite, bad taste, head ache, and general malaise. The tongue slightly furred, skin sallow this will last a few days, until on chill forces him to his bed.

Or he may be suddenly attacked while pursuing his avocation; with decided rigors.
The face becomes pale, the lips are purple and the finger nails have a purplish tinge, the temperature is raised, there is generally nausea and vomiting, the matter vomitted being of a greenish or yellow color, pain in the loins and extremities and chilly sensations or rigors.
The febrile movement succeeds the chill accompanied with intense headache. The thermometer shows an increase of 114° to 116° above the normal standard, pulse increased in frequency and fullness.

The patient feels uncomfortable heat, the skin hot dry and parched reddened and somewhat ex-
-panded and respiration is hurried. This may continue for six or eight or even forty eight hours and then abate. The pulse will slow, the skin become humid, the patient feels more comfortable, and often drops into pleasant sleep, from which he awakens much refreshed, The headache, thirst, heat, nausea have subsided in intensity or entirely ceased. the tongue is less furred, and the pulse returns to its normal beat and food is taken without the previous loathing.

This constitutes the stage in which the remission takes place. It is more or less clearly marked and occurs in nearly all cases of remittent fever. The length of this stage is not regular, it may last from a few hours to a day varying as the type of the fever may be quotidian or tertian. Then the exacerbation again takes place very much like the first commencing with chill and ending with fever. This terminates with another remission, the alternations then continuing each succeeding paroxysm being more severe and lasting longer and each

remission less clearly marked and shorter, when the disease reaches its greatest intensity. Sometimes the only sigh of the exacerbations and remissions are slowing of the pulse cooling of the skin and slight abatement in the sufferings of the patient in the morning and evening. The remissions are irregular and sooner or later become continuous. The lowering of the pulse marks the remission when the general symptoms furnish no other evidence, In fact the disease may begin in this continuous form The pulse is quicker than at first being as high as 120 in a minute.

The pulse acquires increased force and tension inflammation of several organs being developed. The dryness and heat of the surface is also increased. The tongue is covered with a white or yellowish coating often assuming a brown or blackish color in the centre. In the mildest form it is a little moist throughout the course of the attack; but in the higher type it not infrequently presents a dry surface with cracks or fissures upon its dorsum, it is dry in the paroxysm moisture returning with the remission, the margins are red and indented by the teeth,

in consequence of its swollen con-
-dition. The patient is annoyed by
tickling sensations in the fauces
and on the back of the tongue in-
ducing a disposition to be constantly
spitting a glairy mucus being Ex
-pectorated. The nausea may con
-tinue through the course of the
disease often preventing the re-
tention of food or medicines. The
bowells are nearly always consti-
pated. The stools are of a bilious
character and of a dark green or
black color. Sometimes there is loose
ness which combined with the
vomiting present the characters
of Cholera Morbus.

The Urine is scant and of a yellowish red or reddish brown color, with a specific gravity of 1024 or 1030, acid reaction, not coagulable by heat albumen being rarely present, with a latentitious deposit. The skin and conjunctiva often have a yellow hue or sometimes a bronze tinge, which is said to be less marked when there is copious bilious discharge. Cephalalgia is a prominent symptom attended with Tinitus Aurium, Phonophobia and Photophobia, conjunctival vascularity and flushed face with sometimes symptoms of Meningitis. Delirium stupor, incoherence of speech and coma may be present. There is always

wakefulness with restlessness and jactation. The disease generally lasts two or three weeks, When it terminates favorably the improvement is either abrupt or gradual after a copious perspiration. When unfavorable it takes a malignant type, coldness extends from the extremities to the body, the hands and feet are covered with a clammy sweat, sometimes there is breathing with a double sigh or hiccough with emaciation of a brownish matter, dark colored dejections are involuntarily discharge from the bowells, urine fetid, scant, or suppressed, eyes turbid, features collapsed; stupor is

followed by coma; and death takes
place during unconsciousness.
When the disease terminates favo-
rably convalescence is generally rapid
though protracted in severe cases.
Enlarged Spleen and diseased
Liver are its frequent sequelae with
Dyspepsia Jaundice or Dropsy.
Causation. It is generally agreed
that this disease is caused by a
poison from marshy regions called
Miasm. this Miasma is thought to be
destructible to the red corpuscles of
the blood. It attacks only those ex-
posed to such Malarious influence
It prevails in the summer and fall
months, All ages are liable to contract it,

The white more than the negro; it is neither contagious or portable; one attack affords no protection from a second if exposed to the same influence

Diagnosis, Simple Remittent fever is rarely fatal. It is discriminated from Simple intermittent by the occurrence of the remissions instead of the intermissions and by the fever becoming continuous. It differs from Typhoid or Typhus by the absence of tenderness and paroxysmal form of bilious fevers, Second by the instability of the stomach. Third constant cephalalgia, Fourth excess of bilious production shown by

vomiting and purging bile the jaundice color of skin and eyes and high colored urine with absence of albumen. Fifth the Typhoid eruption is wanting. Lastly. remittent is only developed in malarious regions, or in persons who have been exposed to miasmatic influence and the length of time which has elapsed since such exposure, the season of the year, and the knowledge that the patient has been so exposed puts this differential diagnosis beyond cavil. Typho Malarial is distinguished from remittent by the characteristic events of ~~Typoid~~ Typhoid ——

viz, abdominal symptoms, the eruption, ataxic phenomena accusing earlier, epitaxis, and occasionally perforation of the intestines.
Prognosis. Favorable being as a rule attended with little danger, fatal cases are due to coexisting complaints An attack of Remittent fever leaves the patient liable to attacks of Intermittent and the sequelae of the the latter disease often follow, viz enlarged spleen, anemia and dropsy. The disease differs in different times and places, It is more severe in tropical than in temperate climates. It differs also in cases at the same time and place

Treatment, The antiphlogistic is not allowable, Blood letting and depressents are inadmissable. In fact where a disease peculiarly affecting the vascular and nervous systems. Almost every organ suffers the gastro intestinal membrane is affected, the brain is involved, rending headache and delirium being present. Therefore spoliative treatment is utterly unjustifiable. In remittent fever we have a terrible disturbance of many of the organs due to the presence in the blood of a subtle poison acting on them all, Therefore the guiding principle should be to counteract this poison

to neutralize it, or expel it from the system and to prevent a recurrence of the exacerbation.

In Quinia we have such an antidote which if sedfully used will not disappoint our expectations, Of cours the bowells must be thoroughly evacuated, if the stomach is loaded it must be relieved by emetics, this is hardly necessary as obstinate vomiting is almost always a troublesome symptom. Quinine must be given at once without waiting for a remission. If the irritability of the stomach be so urgent that the remedy is rejected, while we adopt measures

to allay it, such as alkaline reme-
dies combined with hydrocyanic
acid, Terpentine stupes or even blisters
to the epigastrium, time should
not be lost. Quinia should be thrown
up the rectum in full and efficient
doses to induce the symptoms of
saturation or cinchonism before
the time of the expected exacerba-
tion. According to experience it
is bad practice to withhold quinine
until an impression has been made
on the hearts action for fear of in
creasing headache or causing con
-gestion of organs. An impression on
the hearts action is best attained
by arresting the paroxism.

and this is done most effectively by the early administration of quinine. When the tongue is black and dry, sordes on the teeth, skin hot and parched, pulse quick, intelligence feeble indicating a system charged with malarial poison Quinine with concentrated beef tea and brandy are called for, Heroick doses of Quinine are inadmissable, and within a limit of twenty grains there is not much danger of aggravating the headache.

It is believed in remittent fever Quinine is a powerful remedy in quieting the tumultuous action of the circulation disturbed by

the presence of malarial poison.
In all cases we must be conserva-
-tive of the patients strength as one
of the characteristics of the disease
is loathing food we must there
fore be careful and see that he is
properly nourished. Milk beef tea
broths and Valentines extract of beef
being excellent for this purpose.
Stimulants are also indicated
especially in the malignant or
congestive type.

In the milder forms
we can give Quinine in doses of
from five to ten grains, or three
grains three times a day. In malig
nant fifteen to twenty at the outset.

When Quinia is administered hypodermically the Bromide of Quinia should be employed.

Small doses of Mercury should be given to unload the bowell and the bowel should be watched throughout the disease. Mercury was once thought to exercise specific influence in this disease and it was used even to its constitutional effects, this practice has been generally discontinued Still small cathartic doses of Calomel or Blue mass are useful to overcome constipation and relieve hepatic congestion.

Notwithstanding its abuse it will no doubt hold its place in the

initiatory treatment of all malarious diseases.

The chill may sometimes be prevented or aborted by using Chloroform by inhalation or administered internally. The convalescent from malarious should be carefully watched, as a re-exposure to the influence will be very apt to bring on a relapse which may take the malignant form, or at least extend the time of ultimate recovery to double its usual duration.

The Quinia in grain doses daily or some of the

preparations of Bark should be kept up as long as there are lurking signs of the disease or while the patient remains in the malarious district.

Tonics sometimes Combined with stimulants are often beneficial, Quinine Wine and Iron are good as restorative and alterative. Good nutritious food, Moderate exercise or employment are necessary adjuvants, And plenty of fresh air and cheerful society, for the convalescent from malarial fever is of a notoriously bilious disposition.

An Inaugural Dissertation

on

Action of Medicines and Circumstances Modifying Their Action

Respectfully submitted to the Examination of the Provost Regents and Faculty of Physic of the University of Maryland for the Degree of Doctor of Medicine Session 1873-4

by

Charles. T. S. Butler

of West Virginia

In taking up a subject so comprehensive and interesting as the action of Medicine and the modifying circumstances, I feel my inability to do anything like justice, but aware of the bounds your clemency extends, I feel sure that due allowance will be made for all erroneous and ill founded opinions I may have brought together in my feeble attempt to treat of the action of Medicines.

The word Medicine is derived from the Latin word "Medeor" to heal and signifies any substance used in the

treatment of disease. The study of Medicine is intended to teach the Physician the nature of diseases and the proper application of Medicinal substances to their cure or alleviation.

Medicines produce their effects in three ways, Mechanically, Chemically and Vitally. Examples of the Mechanical action are found in many of the Anthelmintics which expel worms from the Alimentary Canal simply by the irritation they produce, also in the use of Metallic Mercury to overcome Intussusception of the Bowel by its gravity, and in the administration of Sub Nitrate

of Bismuth in irritation of the mucous membrane of the Stomach over which it spreads and thereby protects it from any irritating substances which may be taken into it.

In regard to the chemical action it is believed that the same laws govern them in the body as well as out of it, an example of this may be found when there is an excess of acid in the urine, if a small quantity of urine in which there is an excess of Acid be put in a test tube, the action of Alkalies on it will correct this, and the same thing is known to take

place in the body. It is from the knowledge of this fact that we administer Alkalies in Gout and Rheumatism, the same thing is believed to be true of all the fluids of the body in which there may be an excess of acid, it can be corrected by the proper administration of Alkalies.

The vital action of Medicines cannot be explained on any known principle, that they do act in this way we are certain, but how we are unable to explain. That they do act and modify the vital forces which regulate the body is an established fact. The majority of Medicines act

vitally, examples of this are found
in the Stimulants, Emetics, Cathar-
tics &c. Some Medicines man-
ifest a peculiar tendency to act-
on certain organs, this cannot be
explained, but can only be attrib-
uted to a natural affinity supposed
to exist between the drug and the
particular organ, thus Tartar Emet-
ic acts on the Stomach whether
given by the mouth or injected
into the Circulation, another strik-
ing example of this is furnished
us in the action of Alcohol on the
Brain, this has been proved
beyond a doubt by the presence
of Alcohol in the Brain after death

in those who have been addicted to its use for a long time. Medicines are sometimes divided into two opposite classes viz Stimulants and Sedatives, but this cannot be said to be strictly true since their action will vary according to the dose in which they are administered, thus Opium in small doses will stimulate, in large doses will produce narcotism. The same thing can be said of Alcohol, which in small quantities is a powerful cerebral stimulant and if taken in very large quantities is equally a powerful depressant, inducing This may be said

of all Stimulants- That there is always a certain amount of depression which follows their stimulative action.

The ways in which Medicines act are two in number 1st Local 2nd Remote. Medicines act locally by being directly applied to the part as Cataplasms, Sinapisms, Blisters Escharotics &c. These by their local action are often used in the treatment of diseases which are deeply seated, when employed in this way they are called Counter Irritants thus Blisters are sometimes placed over the Abdomen to relieve Inflammation of the Bowels

The modes in which Medicinal substances are applied locally and the causes for which they are employed are very numerous, in one article being limited to a single disease, for example Nitrate of Silver is used to arrest hemorrhage, and also to arrest the progress of Phagedenic ulcers, and is also given internally in many diseases, and is used in many other ways. The same Medicine may act both locally and remotely.

Medicinal substances produce their remote effects by being absorbed into the circulation

It was formerly supposed that Medicines produced their effects through the Nervous System, but this has been shown not to be the case by direct experiment on some of the lower animals. Medicines to be readily absorbed must be in a state of solution, although some substances seemingly insoluble may be given in the form of solids, and will be rendered soluble by the different juices they meet with in the body, which enable them to be taken up by the Circulation. The proof that Medicines are absorbed as shown by their being found

in the excreta of the body, thus Rhubarb
Turpentine and many others when
administered internally have been
found in the urine, another proof
of this is the presence of drugs
which have been swallowed, in
the tissues of the body, thus Lead
and other substances which have
been taken for a long time are
sometimes found in the muscles,
and Nitrate of Silver sometimes
produces permanent discolora-
tion of the skin in those to whom
it has been administered for a
considerable length of time, this
is one of the greatest objections to
the continued use of Nitrate of Silver

and deprives the Physician of a valuable remedy in treating certain diseases. A still more striking proof of the absorption of medicinal substances into the circulation is found that in women who are nursing infants and who have taken Opium, it is well known in these cases that it sometimes produces narcotism and even death of the child.

There are other agencies which the Physician has at his command for the treatment of disease which together with medicines come under the general head of Remedies. They differ from

Medicines in being more general
in their character. There are some
cases in which Medicines would
be of little use without the assist-
ance of these agencies, thus a Patient
may be laboring under a disease
which under ordinary circum-
stances would be curable without
much difficulty, when from
depressing spirits or other mental
emotions he is unwilling or has
not the energy to pursue the course
prescribed by his Physician, a
change of air and scenery may
so invigorate and encourage him
as to make him at once do the
willing and anxious to undergo

almost anything to be restored to health. It is in this way that some individuals if left to themselves or to the power of medicines alone would drag out a miserable existence, but when from the combined powers of Medicines and Remedies they are cured or so far benefited as to be able to live a comfortable and happy life. Patients suffering from Phthisis and living in a cold and variable climate are sometimes benefited beyond the most sanguine expectations by removal to a warm and equable climate. There are many other Remedies

that we are daily used in connection with Medicinal substances such as heat, cold, Electricity baths, fomentations &c. Heat is an invaluable remedy in some cases, such as sudden loss of tone in the Capillaries of the surface, This is often cured and the natural Circulation restored to the part by heat produced by friction. Cold is useful in various ways, in many forms of Inflammation, as Inflammation of the Brain, it acts beneficially by lowering the temperature and constringing the blood vessels of the part. Electricity in connection

with medicinal substances is used constantly now in Paralysis and other forms of Diseases with very happy results in some cases. It was formerly believed to be very efficacious in arresting the progress of Cancer, and was at one time used to a considerable extent for that purpose, but it is now known that it has no power over that formidable disease.

Circumstances modifying the action of Medicines are numerous and it is necessary that they should be carefully observed in order that the medicinal substances

may produce their desired effects and not prove injurious to the patient as would sometimes happen if these were overlooked or neglected.

Age is the most important modifying circumstance. In children the organs and tissues are much more delicate and less perfectly formed, consequently they are susceptible to the actions of medicinal substances in a much greater degree than adults. The younger the child the greater is this susceptibility, another reason why they are more improvable is that the medicines have less

material co-operation, and this may also be said of adults who are very small, the action of the medicinal substance will be in proportion to the quantity of material it has to act on, and in treating adults who are very small this circumstance should not be overlooked. There have been several rules devised by which to administer medicines to children. That of Dr Young is very simple and is more often adopted now than any other, it is to diminish the dose of most medicines for children under twelve years in proportion to the age to

the age increased by twelve. Thus the dose for a child at one year would be $\frac{1}{1+12} = \frac{1}{13}$. There are a good many exceptions to this rule. Some Medicines may be given in larger quantities such as Castor Oil, Rhubarb &c, others must be administered in much smaller doses as Opium, Antimony &c. It was formerly thought that Mercury could be given to children in considerable doses with impunity, because it does not produce Ptyalism in them, but this has been found to be a great mistake since very serious effects sometimes follow its use

such as general impairment of the System, Necrosis of the Inferior Maxillary bone and even death. In old age like childhood great care should be observed in the administration of Medicines. At this period of life the whole System is debilitated and is therefore much more susceptible to the action of Medicines. All substances which have a tendency to lower the vitality should be avoided, such as Purgatives which produce copious watery discharges, and Emetics which cause violent vomiting, and at the same time exert a powerful debilitating influence.

Sex is an important modifying
circumstance. Females are more
susceptible to the action of medicines
than males, and this susceptibility
is very much increased in them by
certain conditions which are not
found in the male, such as Men-
struation, Pregnancy and Lacta-
tion. Menstruation has a debilita-
ting effect on the whole system and
during this period strict hygienic
measures should be adhered to
as well as careful administra-
tion of drugs.
For much care cannot be taken during
Pregnancy in the administration of
medicines, very serious consequences

may cause both mother and child from a drug which under ordinary circumstances would be comparatively quite inactive, thus an Emetic may cause an abortion, and narcotics when given in large doses and acting through the circulation may cause death of the foetus.

During Lactation the milk will partake of the nature of the substances taken into the system, it is in this way that some medicinal substances when given to the mother will produce very injurious effects on the child through the milk. This fact should be specially

in view in treating women who are nursing children. Many an infant has been consigned to an early tomb either by ignorance of this fact or by neglect on the part of the Physician or attendants. Disease itself has a considerable influence over the action of Medicines. In certain diseases such as Tetanus and Mania a Poison enormous doses of Opium can be borne much larger than could be borne in health. In the administration of Medicines the Temperament of the patient should be taken strictly into account, and the treatment governed accordingly, thus in patients who

are very plethoric Stimulants must
be used with great caution, and
again on the other hand in those
of a Lenco-Phlegmatic habit- all
substances which tend to depleti-
or lower vitality must be adminis-
tered with great care.
Idiosyncrasy is an important modi-
fying circumstance, that is a
peculiarity of constitution in which
some persons are seriously affected
by an agent which would have no
effect on others. The Physician is
sometimes very much embarrassed
after administering a dose of Medicine
to find his patient has an Idiosyn-
crasy and very serious trouble.

resulting from a dose which under ordinary circumstances would be very mild in its action. On the other hand some persons can bear immense quantities of certain drugs and seem to be incapable of being acted on by them. In treating a patient it is always well to enquire into his history and find out if any idiosyncrasies exist and regulate the treatment according to

— Diphtheria. —

A Graduation Thesis. —
Respectfully Submitted
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To The Charitable Criticism
Of
The Hon. Faculty Of The Department
Of Medicine
Of The University Of Maryland.

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Diphtheria

Diphtheria, or, as it is more properly to be called, diphtheritis, is a blood-disease with local manifestations, primarily in the mucous membrane of the fauces.

The history of this disease can be traced to a period contemporaneous with Homer. Various and conflicting were the appelations applied to the affection however, and it was not until the year 1826, when the great Bretonneau published his immortal essay at Paris, that the present universally accepted name was given it and the pathology and phenomena of the disease were first well understood.

The term has nevertheless been vaguely used, mild inflammations of a slightly similar character have often been confounded with it. This fact will account for the cases of "remarkable success" some physicians achieve during the prevalence of an epidemic.

The blood undergoes the first departure from a state

of health - the case in other contagious diseases. Immediately upon its invasion, redness is perceived ~~is observed~~ on some portion of the faucial mucous membrane, usually that covering one or other tonsil or in the immediate vicinity of such tonsil. A fibrinous exudation takes place forming patches of what is known as pseudo- or false-membrane, which varies in thickness from shreds of clear transparency to one fourth of an inch or more. Its color varies from a pearly to a grayish or ashy brown according to the amount of exuded membrane and the character of the blood. After a longer or shorter time, a secretion, partly ~~purulent~~ purulent and partly mucous, brings the membrane off from its attachment, reformation taking place in some cases.

The diphtheritic exudation may be found upon the tonsils, on the uvula, larynx, trachea, bronchial

tubes; in the pharynx and œsophagus; on the gums, the lips, tongue, on the mucous membrane of the mouth and even on that of the nose; the conjunctival membrane may be affected and so may the vagina. Occasionally the nipples of nursing women are covered by the exudation, this is to be accounted for by the fact that the gums or the buccal cavity of the infant is affected, the nurseling thus poisoning its mother's breast. In all these instances, chemical and microscopical analyses yield entirely the same result.

Symptoms: Sometimes the disease is ushered in by a chill and the usual signs of fever - headache, loss of appetite and general malaise; the patient continuing to walk about. In such cases, the initial symptoms may be, and generally are, taken for ordinary catarrh. In other cases, severe symptoms herald the affection. The face is flushed, the pulse greatly accelerated;

there is swelling of the submaxillary glands; there may be headache in the frontal or in the occipital region. Swallowing is interfered with and there is pain on pressure and extreme tenderness, together with a feeling as of fulness in and about the fauces. The tongue is covered with a whitish fur and the papillae of this organ are enlarged.

When the disease is confined to the fauces, there is little occasion for alarm, formidable symptoms may follow however from the inflammation proceeding to the pharynx and posterior nares, and the important structures in the vicinity. If in the case of small children, (preeminently in these, though my very humble self is of the opinion that the sign will also indicate the approaching disease in the case of adults) dyspnœa occurs, the fauces folding back from sight, when the nose is very red and there

is snuffling on one or both sides of it, the appearance of the unmistakable symptoms of diphtheria may be confidently expected within twenty-four hours. When the posterior nares are affected, the swelling plugs the nostrils altogether, hence, respiration takes place solely through the mouth. When the pseudomembrane is found lining the entire mouth,—a state of things occasionally observed in typhoid fever—it is known as "Buccal Diphtheria", the disease beginning with the gums and extending into the fauces. When the membrane is removed, the mucous lining is left glazed and shining; there is little actual pain, but the mouth is in a "stiff" condition, if I may use the term; the taste is blunted, nevertheless hot drinks produce intense irritation.

——— There is no very marked indication of the extention of the diphtheritic inflammation to

the œsophagus, since there is little or no pain there, nor is swallowing impeded; the existence of the action is here only suspected by the presence of "ribbands" or large membranous materials contained in the discharges, either those vomited or in those present in the stools.

— Sometimes the diphtherite spreads to the larynx and the trachea and constitutes what is known as diphtheritic croup. The symptoms attendant upon such descent are loss of strength in the voice which gradually falls into a whisper; noisy, stertorous breathing; brazen cough; head thrown back in respiration, the respiratory acts very difficult, the alæ nasi expanded at each inspiration; marked restlessness, occasionally, great drowsiness; blueness of the nails and the lips — everything portending death by asphyxia.

In all these varieties of local exudation, the swelling

of the submaxillary and cervical glands is never absent, forming one of the most important diagnostical signs in the early stages of the disease.

The external ear may become affected; diphtheritic ophthalmia may occur, one or both eyelids being covered by the exudation which, extending as far as the cornea, occasions ulceration, and impairing or entirely destroying vision; the earlier this occurs, the greater is the danger. Diphtheritic ophthalmia is more dangerous in adults than in children — the latter generally recover, the former lose the affected eye.

General Symptoms: The patient may pass safely through the Beforementioned symptoms, may seem well, and, suffering an unaccountable prostration, may nevertheless fall into the embrace of Death. The depressing influence

of the diphtheritic toxinea on the nervous system occasions the unexpected death; and then again a clot may be formed in the heart, either in the right or the left cavities, during convalescence and may cause sudden death, though the disease proper has apparently been done away with. In such cases it is proper to insist upon an autopsy; if the clots are found, one's reputation is saved, against such affection of the heart no human agency availing anything.

Another source of danger besides clots in the hearts is hemorrhage. The mouth, e.g., or the nose or throat is covered by pseudomembrane, and when this is expected to exfoliate, remedies having been given to produce this result, most profuse and unexpected hemorrhage occurs. This symptom is to be dreaded because it indicates an

altered condition of the blood.

These conditions belong more properly under the heading Sequelae. Of these, paralysis of the voluntary and involuntary muscles, which occurs to a greater or less extent in severe cases, may last for one or two months, changing the voice and rendering deglutition difficult. This sequel generally occurs after convalescence has set in.

Various forms of paralysis are connected with this formidable disease:

One of the muscles of the eye is sometimes paralyzed; in other cases, the entire vision is impaired, due ~~either~~ due to inability of the muscles to adapt themselves to near objects, while the power to distinguish things at a distance is not at all interfered with. — In some instances, the respiratory muscles or even the heart itself is paralyzed. —

In consequence of the profound impression produced by the diphtheritic poison upon the nerves, the muscles of the throat may undergo paralysis, the exudation having passed away. When the hands or feet (have are been) thus affected, there result tingling, together with loss of tactile sense and motor power. — In the majority of cases however, there is, first, paralysis in the soft palate in connection with a kind of nasal twang, and fluids, in consequence of such paralysis, are, when taken, regurgitated through the nose.

The paralysis of diphtheria is distinct from spinal paralysis affecting adults — one of the best diagnostical marks is, that the application of galvanism or electricity has a decided effect upon cerebro-spinal, whereas it does not at all control diphtheritic paralysis. ——

If vomiting occur early in the disease, this symptom is not dangerous – if it set in late, it is. The same may be said of convulsions; if they occur early in the disease, their presence is not of serious import – if they occur later, their appearance should excite great anxiety.

Diarrhœa also when occurring in the last stages occasions usually death. –

When Diphtheria succeeds measles, pneumonia occasionally may complicate it. Albumenurea is sometimes attendant upon Diphtheria, more especially when there is great swelling of the cervical glands. – As regards the Condition of the Mind, this in some cases is unaffected even to the last; in other cases, active delirium takes place, ending occasionally, and especially towards the close, in a comatose state. – Fetidity of the breath is

not observed in the great majority of diphtheritic cases. The occurrence of this symptom has indeed, according to Professor Howard, been very much exaggerated; occasionally however it is well marked, reminding one of gangrene of the lungs: it is caused by the disintegration of the pseudomembrane, or, when the fetid odor is first perceived, as it sometimes is, after the membrane has been exfoliated, by the morbid secretions of a mucous matter.

The pulse-rate varies much in the beginning of the acute cases; it may be 110, it may be 140; sometimes it is high, decreasing rapidly and suddenly; sometimes it may intermit — when this occurs, the formation of clots in the heart is to be apprehended.

The false membrane usually occurs in the throat on the second or third day from the initial

symptoms; it may however be delayed — by febrile movement? — until the fourth and sometimes, though very rarely, till the fourteenth day. When once formed, the period of its duration is on an average ten days; it may however fall off in one or two days. It is often detached and then forms again in three or four days; it may in fact become off and be reattached three or four times during the progress of the disease.

Anatomical Characters: The reason of the occurrence of hemorrhages in some and their non-appearance in other cases; the question why it is that certain persons affected with this disease die with pale and pinched features and others not; why some are cyanotic, and others exhibit no such symptom — all such queries are not to be answered. Nor can the

changes that go on in the blood be defined, those changes which give rise in some cases to clots in the chambers of the heart, in others, to profuse and fatal hemorrhages.

Pathological Characters: Some cases commence with exceedingly high fever, vomiting, ending in convulsions and rapid collapse - and they are not to be explained by post mortem examination.

Diagnosis:

Some have maintained that Diphtheria is really Scarletfever with eruption. This is not so however. 1. Diphtheria can be suspended for the time being by scarlet-fever; after the latter has run its course, the former may be renewed - and vice versâ. - 2. It was not till 1856, that diphtheria was seen as an epidemic in the U. S. A., scarlet-fever, on the other hand, had been met with before that ~~time~~ year, time and again.

3. Diphtheria has no eruption; the only symptom

it has in common with Scarletfever is fever, yes, and sore throat. 4. The "Strawberry" tongue of Scarlet-fever is absent in diphtheria. 5. Diphtheria has no definite period, varying from 12 hours to 14 days and its duration is as variable. 6. In Scarlet-fever there is no remission nor relapse; diphtheria has both. 7. Scarlet fever very rarely attacks the same person for the second time. Diphtheria may occur, and that not uncommonly, in the same individual after the lapse of months or years. If the fact that neither of these diseases has the power to protect the system against the other be taken into further consideration, it will become evident that the two diseases are perfectly distinct affections.

—— Differential Diagnosis Between Diphtheritic And Pseudomembranous, or True, Croup:

Anatomically speaking, there is no real difference, so far as the false membrane is concerned; but other points destinguishing one disease from the other are well marked: 1. Croup - i.e., true croup, - is a sporadic, ~~that~~ of Diphtheria, an epidemic, affection. 2. Pseudomembranous croup kills by suffocation; diphtheritia ~~croup~~ does not cause death, generally, by local obstruction. 3. In true croup, there is no false membrane formed in the nasal passages, œsophagus, mouth, gums, vagina, rectum or skin - these however occur in diphtheria. 4. The extraordinary swelling of the submaxillary and cervical glands which occurs in Diphtheria is unknown in True Croup; or, if it occur, it is so slight in the latter affection as scarcely to merit attention. 5. Many children die of Diphtheria whose air-passages have not been

affected and breathing consequently not interfered with; exactly the reverse is true of croup. 6. During convalescence, Croup does not usually entail alteration of voice, strabismus, weakness of vision, paralysis, numbness and tingling of the hands and feet, anasthesia, anæmia — the usual sequels of Diphtheria. 7. Croup, finally, is a disease so perfectly and peculiarly confined to childhood, that if it occurs in adult life it may be classed among the "Curiosities of Medicine" — Diphtheria, on the contrary, may attack even the aged.

In simple pharyngitis, which may perhaps be mistaken for Diphtheria, a layer of false membrane often collects, it is true; but it passes away when wiped with a mop or sponge — despite ten thousand mops, the membrane remains in

cases of Diphtheria.

In Tonsillitis or Quinzy, there are little points, strictly confined to the tonsils, composed of epithelial and not at all like the Diphtheritic membrane of fibrous material, pus and mucous lining.

From Faucial Erysipelas (which, like the disease under consideration, is dangerous and may extend to the larynx; which, like Diphtheria, has its mucous membrane dusky in hue, and makes liquids swallowed liable to regurgitation through the nares) Diphtheria can be distinguished by the fact, that in the former disease there is difficulty in swallowing from the first, unoccasioned by cervical swelling; neither is there the formation of false membrane in this affection, nor is it a common disease.

The diagnosis offers seldom any difficulty. Diphtheria has one especial and pathognomonic symptom, i.e., the diphtheritic exudation. All the other symptoms, headache, fever, cervical and submaxillary swelling of the glands, fetid breath, hemorrhages, albumenuria — all are not pathognomonic — the fibrinous exudation however is. — Scarlet fever is sometimes complicated with faucial exudation and the difficulty of diagnosis is increased by the presence in both diseases of albumenuria. If however the throat of a scarletfever patient be examined, it will be found that the exudation is here pultaceous and not adherent, as in diphtheria, and may be rubbed off. Neither does it manifest a tendency to spread to the respiratory passages. And then moreover, in

diphtheria, albumenurea is a concomitant, it is a sequl in scarlet fever.

Although Diphtheria affects the old and middle aged as well as the young, it nevertheless manifests a decided preference for the latter. Thus of 3034 reported cases more than two-thirds occurred within the first ten years of life, and the large proportion of these took place under five years of age.

Causes: That the disease is contagious has been proved by many sad cases. Thus Valleix, so celebrated as an author on Diseases Of Children, examining the throat of a diphtheritic child, received some of the saliva ejected in the effort of coughing into his mouth and died in fourty-eight hours. — Prof. Frick of our University is another case in point.

On the other hand, Bretonneau, Bruso, Peters and others endeavored to inoculate themselves by the diphtheritic poison and — failed. Because it does not inoculate, it need not be uncontagious however. We often see persons vaccinated again and again and still the vaccine matter does not "take." Yet who doubts the contagiousness of smallpox.— The spread in families of diphtheria, from bed to bed in hospitals, is conclusive proof, that it is a contagious disease.— Hence, it is to be remembered, that healthy should be kept away from affected children, nor should the same utensils, which are used in the case of the sick, be employed for the healthy.

Prognosis: The mortality varies greatly in different epidemics. During the prevalence of

of some, few invalids recover, while in others but few die. The age of the greatest mortality, relatively and absolutely, is from three to ten years; the virulence of the disease increasing from the first to the third and diminishing after the tenth year. In all cases, the existence of the membranous exudation should form the touchstone of the diagnosis.

Although mild cases usually recover under rational treatment, severe attacks cause most abundant mortality.

Cases of average severity recover in from five to ten days; the graver forms may last weeks and, occasionally, even months; the chances of successful termination when the larynx and trachea are affected being as one to ten; i.e., out of every ten cases one dies.

After the first week of the existence of Diphtheria however, such danger hourly diminishes.

Hemorrhages from any surface are to be considered untoward and dangerous accidents, indicating morbid changes in the blood.

When the urine is scanty and loaded with albumen it is a very inauspicious occurrence; when however it is surpressed for twenty-four hours, death can confidently be expected soon to occur.

When the disease sets in with intense fever, severe headache, convulsions, small and frequent pulse, flow of acrid mucus from the nostrils, great fetor of the expired breath, it may be considered to be of very unfavorable import.

The swelling of the submaxillary and the

cervical glands, which occurs in every severe case of diphtheria, is so constant in its appearance and generally keeps pace to such an extent with the progress of the disease, that the amount of glandular swelling is in exact proportion to the constitutional danger, although, be it said in passing, the swelling may remain even after the general symptoms have subsided. As long however as such hypertrophy continues, so long does danger exist.

The rapidity of the pulse may be born for some time, unless the patient is especially feeble; nor is the slow pulse of much import; when however the pulse intermits there is great cause for anxiety — because by this symptom the formation of clots in the heart is, as a general thing, most conclusively indicated.

Respecting the paralysis of Diphtheria, Professor Howard never saw a fatal case, this learned teacher states however, that in cases of faucial paralysis death may ensue from dyspnœa.

In diphtheritic ophthalmia, there is very great danger. The danger to vision being greatest, the earlier the cornea becomes affected. Out of, I believe, forty cases treated by Albrecht von Graefe, the eminent German ophthalmologist, only twenty-one recovered with unimpaired vision. The cases that died were probably of an epidemic, those that recovered of a sporadic, type. The fact that there is such difference in mortality when the affection is of a character, in the one case epidemic, in the other sporadic, will account for the remarkable success of

Doctor Jacobson who, during the course of five years, did not lose one single case of the kind. Adults suffer more from Diphtheritic Ophthalmia than do children.

Treatment: This is general or constitutional, topical or local.

I. General: In all cases of Diphtheria one must sustain the patient's strength by means of proper food, tonics and, in many cases, by means of stimulants. This course is called for during the entire disease; especially however is this plan requisite during the first week of the disease, for, although Diphtheria is not selflimited in the same way as the exanthemata, the danger of the further development of the false membrane decreases hourly after the first week. If, therefore, the patient's strength be sup-

ported during that time, the likelihood of ultimate success is of course increased tenfold. There is however no specific remedy for this disease. Debilitating agents are not to be employed, conducing, as they do, to the toxine effect of the disease; hence, bloodletting, cathartics, and, as a general rule to which there are exceptions presently to be mentioned, emetics are contra-indicated.

If constipation exists, one may give Castor-oil, or Rhubarb in tincture; or Henry's Magnesia or that of Husband.

Among the tonics, the Tinctura Quiniæ and the Sulphas Ferri are the best. When the disease commences with high fever, bounding pulse, one should give — Tinctur. Quiniæ, gr. iij; repeating the dose every 5 hrs., after the fever has disappeared. If thus given as a febrifuge, it should

be administered in full doses, if one be taken in the afternoon, another should be given the next morning. It is generally however given as a tonic. In all cases characterized by a tendency to adynamia, Quinia together with the Tincture of the Chloride of Iron should be administered, with any pleasant syrup as the vehicle. HCl has also been highly lauded as an efficient remedy.

The following prescription has been given the class by Prof. Howard:

℞.

Chlorate Potas. ——— ℥j.

Sulphat. Quinia ——— gr. XX.

Syr. Orange flour water ——— ℥ij;

Tinct. Chloride Iron ——— ℥ij ℈.

Aqua ——— ℥ij.

Dose. 1 teaspoonful.

Chlorate of Potassa exerts a favorable influence over the course of the disease. Doses of a grain or two are insufficient however; 5 grs. of the salt sweetened by some pleasant syrup should be given every two or three hours, to a child five or six years old. If the child is old enough to comprehend, it should be told to swallow slowly.

Permanganate Pot as. gr XV.
Aqua ℥vj

1 teaspoonful, every 2 or 3 hrs; used as a general remedy. As a local application, the same salt can be used, in the following combination:

Permangan. Pot. ʒj.
Aqua. one pint.

Dilute Muriatic Acid acts well both as a

constitutional, and a local agent. It acts also as a tonic, increasing the appetite, and stimulating the digestive functions in strongly marked adynamic cases.

These are the internal, i.e., general remedies; in all cases of low type, (food and sustaining remedies being always necessary in such cases) ~~&~~ when the irritable stomach cannot bear drugs, leave them go in preference to alimenta. Of these, milk, egg-nogg, essence of tea, beef-tea, wine-whey, are to be given, in quantities according to the individual case. Sir Wm. Jenner gives from 3 to 5 ℥ of Brandy to a child during the twenty-four hours. Dr. West administered 6 ounces of Port for days together, as the only means of supporting his little patients.

In cases in which the fauces are so filled by the diphtheritic poison as to cause difficulty of breathing and of deglutition, it is necessary, and this forms one of the exceptional cases calling for its employment, to administer an emetic: A single teaspoonful of finely powdered Alum and ten grains of powdered Ipecac in a little honey or pleasant syrup, will act in a few minutes and without much subsequent depression. The yellow Sulphate of Potassa is even preferable to the Alum.

Local Treatment: In the majority of the mild cases, in the diseases of children under 2 or 3 years, 3 grains of Nitrate of Silver to an ounce Distilled Water are to be applied to the affected mucous membrane by means of a camel's hair brush, three or four times

during the twenty-four hours.

In severe cases, a combination of Chlorate of Potassa (aut, Chlorate of Potassium?), Glycerine, Carbolic Acid and Water, administered by means of the hand-ball atomizer, should be applied. If the patient is old enough, the solution may be used as a gargle. The Tincture of the Chloride of Iron is largely used as an application.

The two following combinations remove the incipient exudation in twenty-four hours, according to Prof. Howard:

℞. Carbolic Acid — gr v.
Glycerine — ℥jj.
Liquor Ferri Subsulphitis. ℥jj. i or ij.

Applied once or twice a day by sponge or camel's hair pencil.

Hyposulphite of Soda — ℥ij.

Glycerine ——— ℥j

Aqua ——— ℥vj.

SO_2 applied by means of the atomizer is destructive of certain low forms of organization.

Gargles of hot milk and water, & of portwine, are indicated in the case of older persons.—

External Applications: Prof. Chas. D. Meigs puts lumps of ice into water and applies it. Prof. Howard ignores this method, making use of warm applications, covering them always with oiled silk. If tumefaction continue after the disease itself has disappeared, Prof. Howard makes use of the following:

Iodine — ℥j-jj

Glycerine- ℥ss.

Liniment. NH_3- ℥ss. — 2 or 3 times a day.

An application of hops may be made, unless when there is swelling.

When there is considerable bilateral swelling in the cervical region, free incisions are called for, great relief to the respiratory functions being thus produced.

In cases of Diphtheritic diorrhea, ~~as~~ Chalk with Paragoric should be administered and the discharges at once stopped.

The occurrence of hemorrhages requires, beside constitutional treatment — tonics, bark, iron — the topical application of the grand panacea, Liquor Ferri Subsulphit.

When there is well marked albumenic trace in the urine of the diphtheritic patient, ~~as~~ it is proper to give Flax-seed tea and water. In extreme cases,

leeches over the region of the kidneys may be called for. The Iodide and Chlorate of Potassium, followed by a large quantity of water, are often of marked benefit in the treatment of albumenuria depending upon the poisonous influence of Diphtheria. Jacobi, of New York, gives in such cases Tannic acid — with excellent effect, according to the statement of this physician.

In Diphtheritic Ophthalmia, the lid should be scarified, i.e., when the second stage has arrived: when there is great vascularity of the conjunctiva and serum has been effused into it. "Always endeavor," says Soelberg Wells, in his book on Diseases Of the Eye, "to remove the patient from all noxious influences that may keep up and intensify the disease."

Ice-water should be constantly applied; when there is threatened ulceration of the cornea, or, rather - perforation of the cornea, - ~~then~~ there should be dropped into the eye a solution of the Sulphate of Atropia.

A. v. Graefe in his forty cases - 21 only of whom recovered without impairment of vision - discarded the use of NO_3 Ag. and Hg. He considered them injurious and not at all tending to exert a favorable control over the march of the disease. Jacobson used in his sixty cases - all of which recovered - sedative agents, surgical means, atropia. Both Graefe and Jacobson employed iced applications. Jacobson does not state how many of his cases were children; Graefe does.

In conclusion, the subject of what is known as Diphtheritic Laryngitis, or Diphtheritic Croup still claims a cursory notice. When this takes place, it necessarily forms a most serious state of things. Dr. West is of the opinion that the steady employment of mercurials and tonics is of good effect. Prof. Howard emphatically denies this statement, so far as mercurials are concerned. Our able Professor places the chief hope of success in tonics, stimulants and Chlorate of Potassium; on the spray of atomized fluid, irrespective of surgical means, and by sponge- or camel's hair brush- application. — According to Barthez, the inhalation of from five to ten grains of the Solution of Tannin. is beneficial in some cases, the inhalation

lasting about fifteen minutes.
Lime-water has been used as a solvent of the false membrane, but for therapeutic use its action is too slow. Jaeger used the vapor of water holding lime in suspension. The inhalation of certain warm fluids may be employed.
By these various means can this fearful disease - for at times it is fearful - be held under control; but, despite all medication, in spite of alimentation and every care, the affected person may be hurried into, what Shakspeare calls, "the grim and bony jaws of Death."
Diphtheria being a blood disease poisons the entire system, hence it is that its occurrence, under its own form and not masked by a light attack, is always to be dreaded. The physician should go in such cases "armed to the teeth", as the saying is, to meet it.

An

Inaugural Dissertation

On

Intermittent Fever

Submitted to the Examination

Of the

Provost, Regents and

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Of the

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For

The Degree

Of

Doctor of Medicine

By

Frank Crews.

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Intermittent Fever.

Synonyms.- Ague; Chills and Fever; Shakes.

There are several varieties of this disease. Two, there is one form known as the quotidian, when the paroxysm occurs every day; another is the tertian, when the paroxysm occurs every other day; and another is the quartan, in this, paroxysm occurs on every fourth day; there are also quintian, sextan, septan, and octan forms. The most common forms are the quotidian, and tertian, and next to these is the quartan form.

Clinical History.- In a great many cases the attack is sudden. The patient has a headache, he loses his appetite, he does not feel like exerting himself in the least. These are about the only premonitory signs one has, but to those who have had an attack before, they are of sufficient warning. The paroxysm is divided into three stages, the cold, the hot, and the sweating, these always follow in regular succession. We have first the cold stage. This commences with a sensation of chilliness, often creeping with shivering, and

chattering of the teeth. The chill is often so severe as to cause the patient to be convulsed violently. During the chill the patient's skin has the appearance familiarly known as goose skin; the lips and finger-ends are blue. Notwithstanding the sensation of coldness the patient experiences, if you place a thermometer in his axilla, it will show an increase of temperature of the body. The patient is thirsty, with loss of appetite and occasionally vomiting. The urine is very abundant and very near colorless. The duration of

the chill varies, it may last only ten minutes or it may for two hours, but it generally last about three quarters of an hour: Instead of the chill there may be a fit of vomiting. Next comes the hot stage. The change from the cold to the hot stage is not generally very sudden but gradual: The skin becomes hot with a quick pulse: In this stage there is more or less febile excitement. A flush succeeds the pallor of the face, the headache is apt to be increased, but very seldom is there

, drerium. If a thermometer now be placed in the patients axilla, there will be seen, to be quite an increase of the temperature, reaching a 104° to 106° Fash: The bowels are constipated; the mouth is dry and tongue furred, urine scanty but high colored. This stage generally lasts from two to six hours. Lastly we have the sweating stage. This also comes on gradually; perspiration appears first on the face and then on the trunk and limbs. The thermometer now shows a decrease of temper-

ture, and the febrile move-
ment gradually abates; the
patient is much more com-
fortable; his headache lessens;
if he has had any disturbance
about his stomach, this gener-
ally becomes quiet. During
this stage the patient generally
goes to sleep and sweats pro-
fusely, wetting all the bed
linen. This should be changed
when the patient wakes up.
After his sleep the fever is gen-
erally gone, the pulse is slow
and soft, the skin is cool.
The urine is freely passed and
after a short time there is a

deposit which looks very much like brick dust. There is no definite length of time for this stage. Sometimes the chill is absent and all the other symptoms occuring periodically. This form is known as dumb-ague. Some say that a single limb may go through all three stages. While the rest of the patient is unaffected. During an intermission between two paroxysms the patient has apparent good health except he may have a little headache or feel weak and want of appetite. The paroxysms of intermittent al-

most always occur in the day time. One form of intermittent may pass into another form, thus a case of a quotidian may pass into a tertian.

Sequelae.- Protracted cases of intermittent are often followed by Dropsy. The patient becomes anaemic, and there is enlargement of the Spleen and liver.

Anatomical Characters.-

There is enlargement and softening of the Spleen and engorgement of the liver with a bronzed appearance.

Diagnosis.- The history of the case helps in making the

diagnosis very much. I donot think it would be right for any to say that a patient has intermittent fever because he had one chill, for there are many diseases that commence with a chill. If a patient have two or three chills at regular intervals with the hot and sweating stages cannot often be confounded with anything else.

Prognosis.- Since the discovery of Peruvian bark, and its properties, death almost never happens from the ordinary form of intermittent fever. It is a very

good sign for the paroxysm to occur later in the day. Tertian form is generally cured with the least difficulty; although it may return at the end of two or three weeks.

Causation.— Very much the greater number of cases occur in the fall of the year, and next to the fall, spring. It is necessary to have an average summer heat of at least 60° Fahr. for one or two months for its development. Their violence and mortality increase as we approch the equator. They prevail least in rocky and

elevated, districts, and most frequently in low marshy places. The draining of pounds and mill races, the cultivation of new ground or diging of foundation often originate them.

"Doctor Hausburg, Ohio, say it is caused by plants of the family of Palmellae which abound over the surface of marshes. To prove this he took pieces of earth which were covered with palmellae and carried them to high hilly district were intermittent fever never had been known, and placed the earth on the sill of the sleeping apartment of two

youngmen. Both the youngmen had intermittent fever and the latter and the other on the fourteenth day. No other member of the family was afflicted.

Treatment.— In the treatment of this disease we are generally, it must be said unsuccessful yields to one medicine and this given day after day case after case the only thing necessary is to know if it is intermittent fever and then the routine treatment of Quinine is commenced.

In the treatment of this disagreeable not dangerous disease the main object to be attained is

to get the system cinchonized and this as soon as possible; for the shorter the duration of the poison in the system and the fewer the paroxysms the sooner is the disease entirely cured and the morbid changes restored to their natural and healthy state. To accomplish the cinchonizing of a patient there are several ways in administering the drug as regards dose, the way prefered by some is to give a large dose at once, say 9xx but the difficulty about this is that this amount may be many twice too much for the patient, as some

people require more and some less to produce the desired effect and your valuable drug wasted at least, if no worse trouble should follow. If I may hold and express a modest opinion I prefer to give a smaller dose say gr three times a day in solution, this is rendered perfect by the addition of one drop of Acid sulphuric aromatic to each grain of Quinine, this not only makes the solution perfect but is also one of the best mineral tonics we have.

The amount of Quinine required to abort an expected paroxysm

is of course different in different people but we may generally give to an adult gr. xv to gr. xx. This is generally sufficient to stop the chills and if continued to cure them without the use of Mercurial and other purges as used in years gone by in fact I believe it is considered the best practice to avoid purges of all kind unless obstinate constipation exists. In concluding the general treatment of intermittent fever, it may be said that after the regularly recurring paroxysms have been broken it is well to continue the treat-

[illegible] for, at least 7 days after the last chill, and on the 7 day give quite a large dose of Quinine as there seems to be a tendency for the disease to recur on 7th, 14th and 21st days. In treating young children we sometimes have trouble in giving or getting them to take this very bitter drug, when this does occur it is best to give some other of the alkaloids of cinchonia that are not so bitter, or the pure Quinine per enema, taking care to remember that children bear less than adults in proportion to their years.

Of late years a new preparation

of Quinine has been introduced, this is the Quinine Bromide made by a [illegible] decomposition between Sulphate of Quinine, and Bromide of Calcium. it is a very nice preparation. it is used hypodermically of the strength of gr iii of the salt to m xx of water, which is equal to about gr xii of Sulphate of Quinine. This is a very valuable way to use it in the treatment of pernicious fever, as it is rarely necessary to use so powerfull a remedy in forms I have considered in my Thesis. This is out the general treatment of simple malarial fever and will suffice for all ordinary cases.